


**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☐

<b>APPLICATION FOR PERMIT TO DRILL</b>				<b>1. WELL NAME and NUMBER</b> Greater Monument Butte 14-14T-9-15H		
<b>2. TYPE OF WORK</b> DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>				<b>3. FIELD OR WILDCAT</b> MONUMENT BUTTE		
<b>4. TYPE OF WELL</b> Oil Well Coalbed Methane Well: NO				<b>5. UNIT or COMMUNITIZATION AGREEMENT NAME</b> GMBU (GRRV)		
<b>6. NAME OF OPERATOR</b> NEWFIELD PRODUCTION COMPANY				<b>7. OPERATOR PHONE</b> 435 646-4825		
<b>8. ADDRESS OF OPERATOR</b> Rt 3 Box 3630 , Myton, UT, 84052				<b>9. OPERATOR E-MAIL</b> mcrozier@newfield.com		
<b>10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)</b> UTU-68548		<b>11. MINERAL OWNERSHIP</b> FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>		<b>12. SURFACE OWNERSHIP</b> FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>		
<b>13. NAME OF SURFACE OWNER (if box 12 = 'fee')</b>				<b>14. SURFACE OWNER PHONE (if box 12 = 'fee')</b>		
<b>15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')</b>				<b>16. SURFACE OWNER E-MAIL (if box 12 = 'fee')</b>		
<b>17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')</b>		<b>18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS</b> YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>		<b>19. SLANT</b> VERTICAL <input type="checkbox"/> DIRECTIONAL <input type="checkbox"/> HORIZONTAL <input checked="" type="checkbox"/>		
<b>20. LOCATION OF WELL</b>	<b>FOOTAGES</b>	<b>QTR-QTR</b>	<b>SECTION</b>	<b>TOWNSHIP</b>	<b>RANGE</b>	<b>MERIDIAN</b>
<b>LOCATION AT SURFACE</b>	510 FSL 2307 FWL	SESW	14	9.0 S	15.0 E	S
<b>Top of Uppermost Producing Zone</b>	510 FSL 2307 FWL	SESW	14	9.0 S	15.0 E	S
<b>At Total Depth</b>	283 FNL 1150 FEL	NENE	14	9.0 S	15.0 E	S
<b>21. COUNTY</b> DUCESNE		<b>22. DISTANCE TO NEAREST LEASE LINE (Feet)</b> 283		<b>23. NUMBER OF ACRES IN DRILLING UNIT</b> 320		
		<b>25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)</b> 820		<b>26. PROPOSED DEPTH</b> MD: 10811 TVD: 6015		
<b>27. ELEVATION - GROUND LEVEL</b> 6271		<b>28. BOND NUMBER</b> WYB000493		<b>29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE</b> 43-7478		
<b>ATTACHMENTS</b>						
<b>VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES</b>						
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER			<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN			
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)			<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER			
<input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)			<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP			
<b>NAME</b> Mandie Crozier		<b>TITLE</b> Regulatory Tech		<b>PHONE</b> 435 646-4825		
<b>SIGNATURE</b>		<b>DATE</b> 01/29/2010		<b>EMAIL</b> mcrozier@newfield.com		
<b>API NUMBER ASSIGNED</b> 43013502420000		<b>APPROVAL</b>  Permit Manager				

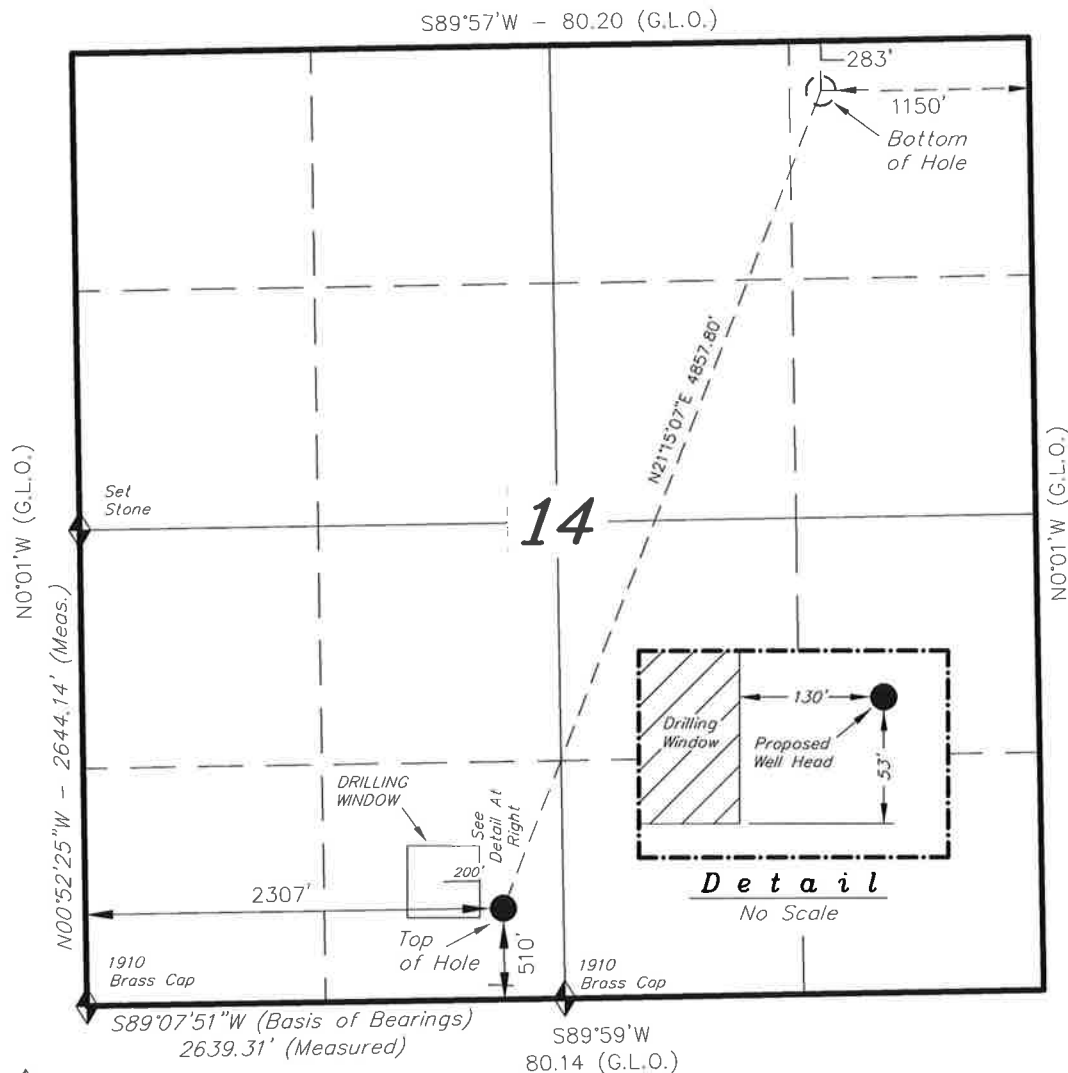
Proposed Hole, Casing, and Cement						
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Prod	7.875	5.5	0	10811		
Pipe	Grade	Length	Weight			
	Grade J-55 LT&C	6015	15.5			

Proposed Hole, Casing, and Cement						
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Surf	12.25	8.625	0	300		
Pipe	Grade	Length	Weight			
	Grade J-55 ST&C	300	24.0			

# T9S, R15E, S.L.B.&M.

## NEWFIELD PRODUCTION COMPANY

WELL LOCATION, 14-14T-9-15H,  
LOCATED AS SHOWN IN THE SE 1/4 SW  
1/4 OF SECTION 14, T9S, R15E,  
S.L.B.&M. DUCHESNE COUNTY, UTAH.

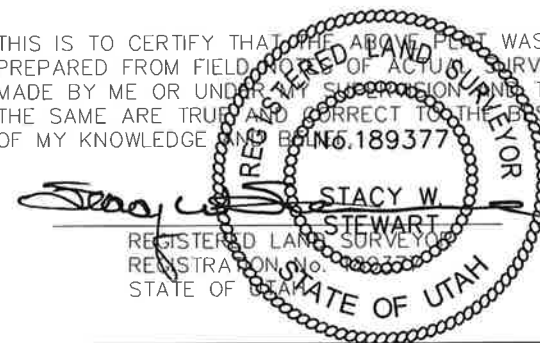


### WELL LOCATION:

**14-14T-9-15H**

ELEV. UNGRADED GROUND = 6271.0'

THIS IS TO CERTIFY THAT THE ABOVE PLAN WAS  
PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS  
MADE BY ME OR UNDER MY SUPERVISION AND THAT  
THE SAME ARE TRUE AND CORRECT TO THE BEST  
OF MY KNOWLEDGE AND BELIEF.



◆ = SECTION CORNERS LOCATED

BASIS OF ELEV; Elevations are based on  
an N.G.S. OPUS Correction. LOCATION:  
LAT. 40°04'09.56" LONG. 110°00'43.28"  
(TRI-STATE Aluminum Cap) Elev. 5281.57'

**14-14T-9-15H**  
**(Surface Location) NAD 83**  
LATITUDE = 40° 01' 30.18"  
LONGITUDE = 110° 12' 02.13"

### TRI STATE LAND SURVEYING & CONSULTING

180 NORTH VERNAL AVE. - VERNAL, UTAH 84078  
(435) 781-2501

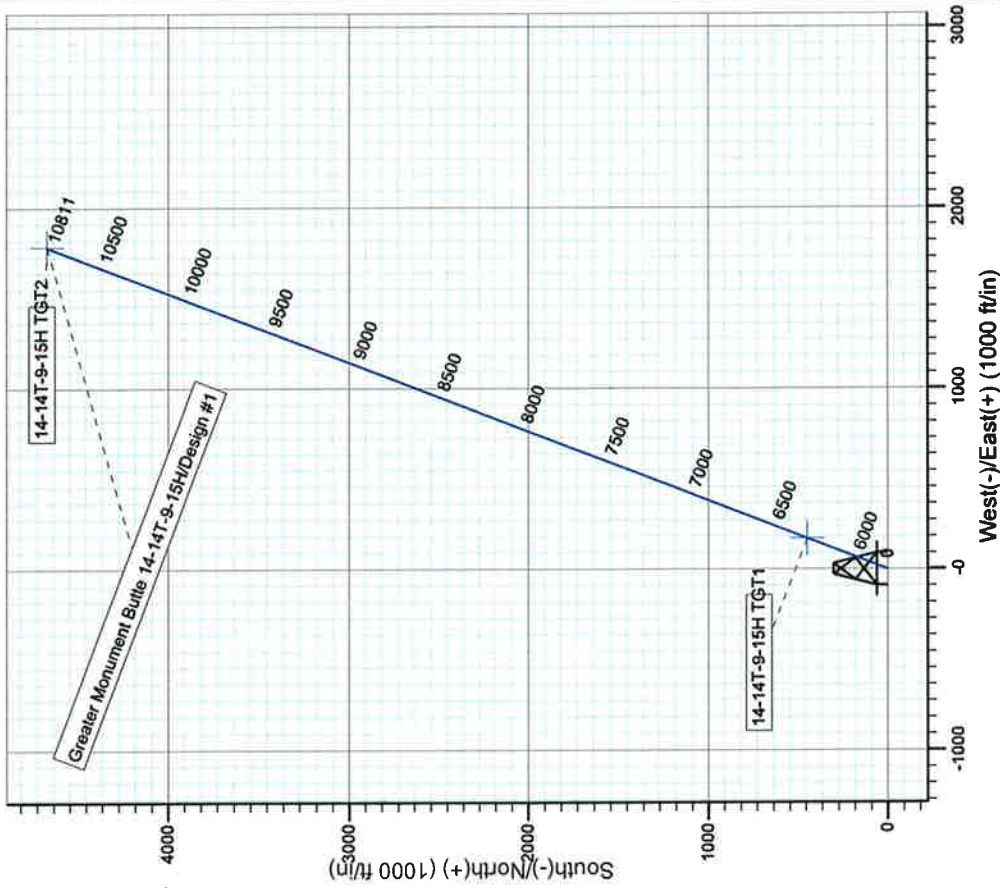
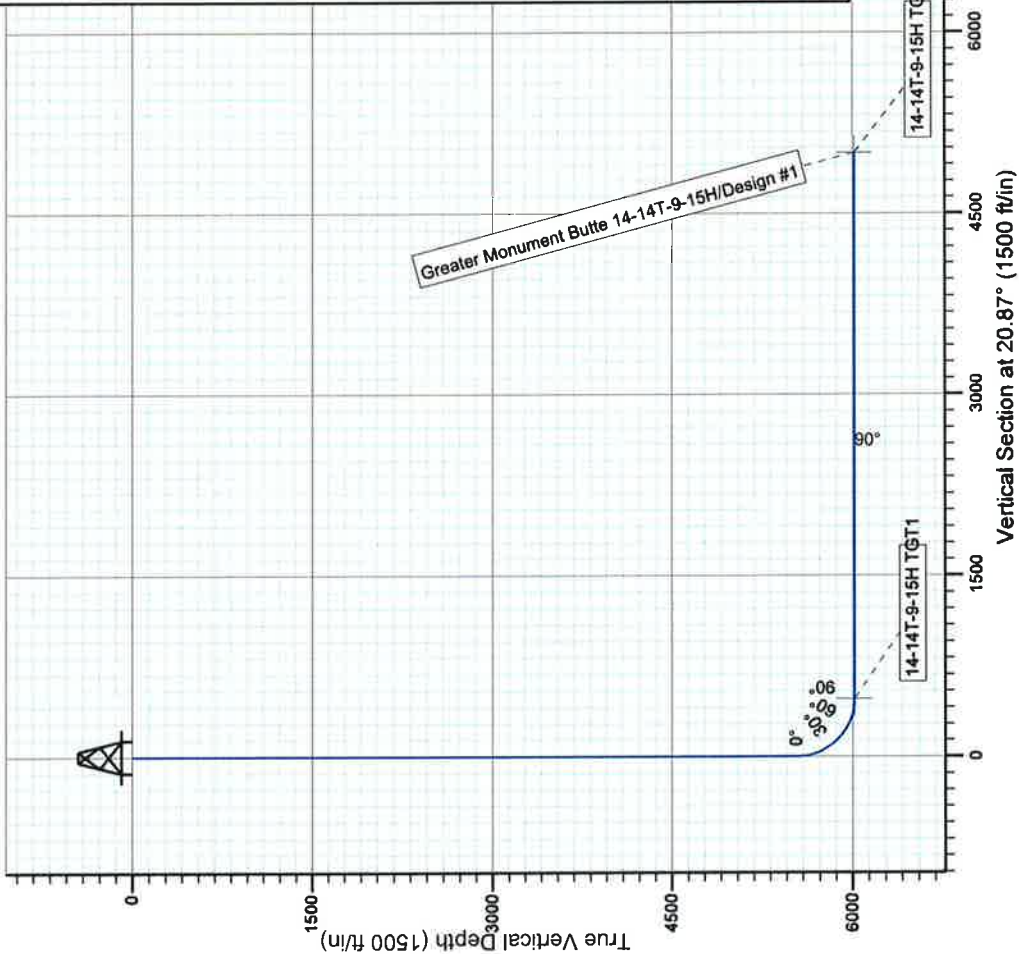
DATE SURVEYED: 11-06-09	SURVEYED BY: C.M.
DATE DRAWN: 11-14-09	DRAWN BY: F.T.M.
REVISED: 1-28-10 - M.W.	SCALE: 1" = 1000'





KOP @ 5537.5'  
MAX DOGLEG RATE 12"  
TARGET POINTS

Project: USGS Myton SW (UT)  
Site: SECTION 14 T9S, R15E  
Well: Greater Monument Butte 14-14T-9-15H  
Wellbore: Wellbore #1  
Design: Design #1



#### SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	2000.0	0.00	0.00	2000.0	0.0	0.0	0.00	0.00	0.0	
3	5537.5	0.00	0.00	5537.5	0.0	0.0	0.00	0.00	0.0	
4	6287.5	90.00	20.87	6015.0	446.1	170.1	12.00	20.87	477.5	14-14T-9-15H TGT2
5	10811.2	80.00	20.87	6015.0	4673.1	1781.7	0.00	0.00	5001.2	14-14T-9-15H TGT2

#### WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
14-14T-9-15H TGT1	6015.0	446.1	170.1	7180793.76	2004424.50	40° 1' 33.149 N	110° 12' 0.243 W	Point
14-14T-9-15H TGT2	6015.0	4673.1	1781.7	7185043.22	2005974.34	40° 2' 14.920 N	110° 11' 39.524 W	Point



# **NEWFIELD EXPLORATION**

**USGS Myton SW (UT)**

**SECTION 14 T9S, R15E**

**Greater Monument Butte 14-14T-9-15H**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**25 January, 2010**

**NEWFIELD**
**Hathaway Burnham**

Planning Report



<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Greater Monument Butte 14-14T-9-15H
<b>Company:</b>	NEWFIELD EXPLORATION	<b>TVD Reference:</b>	14-14T-9-15H @ 6284.2ft (NEWFIELD RIG)
<b>Project:</b>	USGS Myton SW (UT)	<b>MD Reference:</b>	14-14T-9-15H @ 6284.2ft (NEWFIELD RIG)
<b>Site:</b>	SECTION 14 T9S, R15E	<b>North Reference:</b>	True
<b>Well:</b>	Greater Monument Butte 14-14T-9-15H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

<b>Project</b>	USGS Myton SW (UT), DUCHESNE COUNTY, UT, USA		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Utah Central Zone		Using geodetic scale factor

<b>Site</b>	SECTION 14 T9S, R15E, SEC 14 T9S, R15E		
<b>Site Position:</b>		<b>Northing:</b>	7,182,599.00 ft
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,003,890.00 ft
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	"
		<b>Latitude:</b>	40° 1' 51.065 N
		<b>Longitude:</b>	110° 12' 6.777 W
		<b>Grid Convergence:</b>	0.83 °

<b>Well</b>	Greater Monument Butte 14-14T-9-15H, SHL LAT: 40 01 28.74, LONG: -110 12 02.43			
<b>Well Position</b>	<b>+N/-S</b>	-2,259.1 ft	<b>Northing:</b>	7,180,345.24 ft
	<b>+E/-W</b>	338.2 ft	<b>Easting:</b>	2,004,260.92 ft
<b>Position Uncertainty</b>		0.0 ft	<b>Wellhead Elevation:</b>	6,284.2 ft
			<b>Ground Level:</b>	6,272.2 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF200510	2009/12/07	11.54	65.80	52,415

<b>Design</b>	Design #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	20.87

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,537.5	0.00	0.00	5,537.5	0.0	0.0	0.00	0.00	0.00	0.00	
6,287.5	90.00	20.87	6,015.0	446.1	170.1	12.00	12.00	0.00	20.87	
10,811.2	90.00	20.87	6,015.0	4,673.1	1,781.7	0.00	0.00	0.00	0.00	14-14T-9-15H TGT:



# Hathaway Burnham

## Planning Report



**Database:** EDM 2003.21 Single User Db  
**Company:** NEWFIELD EXPLORATION  
**Project:** USGS Myton SW (UT)  
**Site:** SECTION 14 T9S, R15E  
**Well:** Greater Monument Butte 14-14T-9-15H  
**Wellbore:** Wellbore #1  
**Design:** Design #1

**Local Co-ordinate Reference:**  
**TVD Reference:**  
**MD Reference:**  
**North Reference:**  
**Survey Calculation Method:**

Well Greater Monument Butte 14-14T-9-15H  
 14-14T-9-15H @ 6284.2ft (NEWFIELD RIG)  
 14-14T-9-15H @ 6284.2ft (NEWFIELD RIG)  
 True  
 Minimum Curvature

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00





# Hathaway Burnham

## Planning Report



**Database:** EDM 2003.21 Single User Db  
**Company:** NEWFIELD EXPLORATION  
**Project:** USGS Myton SW (UT)  
**Site:** SECTION 14 T9S, R15E  
**Well:** Greater Monument Butte 14-14T-9-15H  
**Wellbore:** Wellbore #1  
**Design:** Design #1

**Local Co-ordinate Reference:** Well Greater Monument Butte 14-14T-9-15H  
**TVD Reference:** 14-14T-9-15H @ 6284.2ft (NEWFIELD RIG)  
**MD Reference:** 14-14T-9-15H @ 6284.2ft (NEWFIELD RIG)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,537.5	0.00	0.00	5,537.5	0.0	0.0	0.0	0.00	0.00	0.00
5,550.0	1.50	20.87	5,550.0	0.2	0.1	0.2	12.00	12.00	0.00
5,575.0	4.50	20.87	5,575.0	1.4	0.5	1.5	12.00	12.00	0.00
5,600.0	7.50	20.87	5,599.8	3.8	1.5	4.1	12.00	12.00	0.00
5,625.0	10.50	20.87	5,624.5	7.5	2.8	8.0	12.00	12.00	0.00
5,650.0	13.50	20.87	5,649.0	12.3	4.7	13.2	12.00	12.00	0.00
5,675.0	16.50	20.87	5,673.1	18.4	7.0	19.7	12.00	12.00	0.00
5,700.0	19.50	20.87	5,696.9	25.6	9.8	27.4	12.00	12.00	0.00
5,725.0	22.50	20.87	5,720.2	33.9	12.9	36.3	12.00	12.00	0.00
5,750.0	25.50	20.87	5,743.1	43.4	16.6	46.5	12.00	12.00	0.00
5,775.0	28.50	20.87	5,765.3	54.0	20.6	57.8	12.00	12.00	0.00
5,800.0	31.50	20.87	5,787.0	65.7	25.1	70.3	12.00	12.00	0.00
5,825.0	34.50	20.87	5,807.9	78.4	29.9	84.0	12.00	12.00	0.00
5,850.0	37.50	20.87	5,828.2	92.2	35.1	98.6	12.00	12.00	0.00
5,875.0	40.50	20.87	5,847.6	106.9	40.7	114.4	12.00	12.00	0.00
5,900.0	43.50	20.87	5,866.2	122.5	46.7	131.1	12.00	12.00	0.00
5,925.0	46.50	20.87	5,883.9	139.0	53.0	148.8	12.00	12.00	0.00
5,950.0	49.50	20.87	5,900.6	156.4	59.6	167.3	12.00	12.00	0.00
5,975.0	52.50	20.87	5,916.3	174.5	66.5	186.8	12.00	12.00	0.00
6,000.0	55.50	20.87	5,931.0	193.4	73.7	207.0	12.00	12.00	0.00
6,025.0	58.50	20.87	5,944.6	213.0	81.2	228.0	12.00	12.00	0.00
6,050.0	61.50	20.87	5,957.1	233.2	88.9	249.6	12.00	12.00	0.00
6,075.0	64.50	20.87	5,968.5	254.0	96.9	271.9	12.00	12.00	0.00
6,100.0	67.50	20.87	5,978.6	275.4	105.0	294.7	12.00	12.00	0.00
6,125.0	70.50	20.87	5,987.6	297.2	113.3	318.1	12.00	12.00	0.00
6,150.0	73.50	20.87	5,995.3	319.4	121.8	341.8	12.00	12.00	0.00
6,175.0	76.50	20.87	6,001.8	342.0	130.4	366.0	12.00	12.00	0.00
6,200.0	79.50	20.87	6,007.0	364.8	139.1	390.4	12.00	12.00	0.00
6,225.0	82.50	20.87	6,010.9	387.9	147.9	415.1	12.00	12.00	0.00
6,250.0	85.50	20.87	6,013.5	411.1	156.7	440.0	12.00	12.00	0.00
6,275.0	88.50	20.87	6,014.8	434.4	165.6	464.9	12.00	12.00	0.00
6,287.5	90.00	20.87	6,015.0	446.1	170.1	477.5	11.99	11.99	0.00
<b>14-14T-9-15H TGT1</b>									
6,300.0	90.00	20.87	6,015.0	457.8	174.5	489.9	0.00	0.00	0.00
6,400.0	90.00	20.87	6,015.0	551.2	210.2	589.9	0.00	0.00	0.00
6,500.0	90.00	20.87	6,015.0	644.7	245.8	689.9	0.00	0.00	0.00
6,600.0	90.00	20.87	6,015.0	738.1	281.4	789.9	0.00	0.00	0.00
6,700.0	90.00	20.87	6,015.0	831.5	317.0	889.9	0.00	0.00	0.00
6,800.0	90.00	20.87	6,015.0	925.0	352.7	989.9	0.00	0.00	0.00
6,900.0	90.00	20.87	6,015.0	1,018.4	388.3	1,089.9	0.00	0.00	0.00
7,000.0	90.00	20.87	6,015.0	1,111.9	423.9	1,189.9	0.00	0.00	0.00
7,100.0	90.00	20.87	6,015.0	1,205.3	459.5	1,289.9	0.00	0.00	0.00
7,200.0	90.00	20.87	6,015.0	1,298.7	495.2	1,389.9	0.00	0.00	0.00
7,300.0	90.00	20.87	6,015.0	1,392.2	530.8	1,489.9	0.00	0.00	0.00
7,400.0	90.00	20.87	6,015.0	1,485.6	566.4	1,589.9	0.00	0.00	0.00
7,500.0	90.00	20.87	6,015.0	1,579.1	602.0	1,689.9	0.00	0.00	0.00
7,600.0	90.00	20.87	6,015.0	1,672.5	637.7	1,789.9	0.00	0.00	0.00
7,700.0	90.00	20.87	6,015.0	1,765.9	673.3	1,889.9	0.00	0.00	0.00
7,800.0	90.00	20.87	6,015.0	1,859.4	708.9	1,989.9	0.00	0.00	0.00
7,900.0	90.00	20.87	6,015.0	1,952.8	744.5	2,089.9	0.00	0.00	0.00
8,000.0	90.00	20.87	6,015.0	2,046.3	780.2	2,189.9	0.00	0.00	0.00



# Hathaway Burnham

## Planning Report



**Database:** EDM 2003.21 Single User Db  
**Company:** NEWFIELD EXPLORATION  
**Project:** USGS Myton SW (UT)  
**Site:** SECTION 14 T9S, R15E  
**Well:** Greater Monument Butte 14-14T-9-15H  
**Wellbore:** Wellbore #1  
**Design:** Design #1

**Local Co-ordinate Reference:** Well Greater Monument Butte 14-14T-9-15H  
**TVD Reference:** 14-14T-9-15H @ 6284.2ft (NEWFIELD RIG)  
**MD Reference:** 14-14T-9-15H @ 6284.2ft (NEWFIELD RIG)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,100.0	90.00	20.87	6,015.0	2,139.7	815.8	2,289.9	0.00	0.00	0.00
8,200.0	90.00	20.87	6,015.0	2,233.1	851.4	2,389.9	0.00	0.00	0.00
8,300.0	90.00	20.87	6,015.0	2,326.6	887.0	2,489.9	0.00	0.00	0.00
8,400.0	90.00	20.87	6,015.0	2,420.0	922.7	2,589.9	0.00	0.00	0.00
8,500.0	90.00	20.87	6,015.0	2,513.4	958.3	2,689.9	0.00	0.00	0.00
8,600.0	90.00	20.87	6,015.0	2,606.9	993.9	2,789.9	0.00	0.00	0.00
8,700.0	90.00	20.87	6,015.0	2,700.3	1,029.5	2,889.9	0.00	0.00	0.00
8,800.0	90.00	20.87	6,015.0	2,793.8	1,065.2	2,989.9	0.00	0.00	0.00
8,900.0	90.00	20.87	6,015.0	2,887.2	1,100.8	3,089.9	0.00	0.00	0.00
9,000.0	90.00	20.87	6,015.0	2,980.6	1,136.4	3,189.9	0.00	0.00	0.00
9,100.0	90.00	20.87	6,015.0	3,074.1	1,172.0	3,289.9	0.00	0.00	0.00
9,200.0	90.00	20.87	6,015.0	3,167.5	1,207.7	3,389.9	0.00	0.00	0.00
9,300.0	90.00	20.87	6,015.0	3,261.0	1,243.3	3,489.9	0.00	0.00	0.00
9,400.0	90.00	20.87	6,015.0	3,354.4	1,278.9	3,589.9	0.00	0.00	0.00
9,500.0	90.00	20.87	6,015.0	3,447.8	1,314.5	3,689.9	0.00	0.00	0.00
9,600.0	90.00	20.87	6,015.0	3,541.3	1,350.2	3,789.9	0.00	0.00	0.00
9,700.0	90.00	20.87	6,015.0	3,634.7	1,385.8	3,889.9	0.00	0.00	0.00
9,800.0	90.00	20.87	6,015.0	3,728.2	1,421.4	3,989.9	0.00	0.00	0.00
9,900.0	90.00	20.87	6,015.0	3,821.6	1,457.0	4,089.9	0.00	0.00	0.00
10,000.0	90.00	20.87	6,015.0	3,915.0	1,492.7	4,189.9	0.00	0.00	0.00
10,100.0	90.00	20.87	6,015.0	4,008.5	1,528.3	4,289.9	0.00	0.00	0.00
10,200.0	90.00	20.87	6,015.0	4,101.9	1,563.9	4,389.9	0.00	0.00	0.00
10,300.0	90.00	20.87	6,015.0	4,195.4	1,599.5	4,489.9	0.00	0.00	0.00
10,400.0	90.00	20.87	6,015.0	4,288.8	1,635.2	4,589.9	0.00	0.00	0.00
10,500.0	90.00	20.87	6,015.0	4,382.2	1,670.8	4,689.9	0.00	0.00	0.00
10,600.0	90.00	20.87	6,015.0	4,475.7	1,706.4	4,789.9	0.00	0.00	0.00
10,700.0	90.00	20.87	6,015.0	4,569.1	1,742.0	4,889.9	0.00	0.00	0.00
10,800.0	90.00	20.87	6,015.0	4,662.5	1,777.7	4,989.9	0.00	0.00	0.00
10,811.2	90.00	20.87	6,015.0	4,673.1	1,781.7	5,001.2	0.00	0.00	0.00

14-14T-9-15H TGT2

### Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
14-14T-9-15H TGT2 - plan hits target - Point	0.00	0.00	6,015.0	4,673.1	1,781.7	7,185,043.22	2,005,974.34	40° 2' 14.920 N	110° 11' 39.524 W
14-14T-9-15H TGT1 - plan hits target - Point	0.00	0.00	6,015.0	446.1	170.1	7,180,793.76	2,004,424.50	40° 1' 33.149 N	110° 12' 0.243 W

**NEWFIELD PRODUCTION COMPANY  
GREATER MONUMENT BUTTE 14-14T-9-15H  
SHL: SE/SW SECTION 14, T9S, R15E  
BHL: NE/NE SECTION 14, T9S, R15E  
DUCHESNE COUNTY, UTAH**

**ONSHORE ORDER NO. 1**

**DRILLING PROGRAM**

This well is designed as a horizontal in the Basal Carbonate formation, at the base of the Green River formation. The well will be drilled vertically to a kick off point of 5,538'. Directional tools will then be used to build to 90° inclination and the well will be landed in the Basal Carbonate formation. The lateral will be drilled to the proposed bottomhole location, and 5-1/2" production casing will be run to TD and cemented in place.

**1. GEOLOGIC SURFACE FORMATION:**

Uinta formation

**2. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:**

Green River	1,555'
Target (Basal Carbonate)	6,015'
TD	6,015' TVD / 10,811' MD

**3. ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERALS:**

Green River Formation (Oil)            4,000' – 6,015' TVD

Fresh water may be encountered in the Uinta Formation, but would not be expected below about 350'. All water shows and water bearing geologic units shall be reported to the geologic and engineering staff of the Vernal Office prior to running the next string of casing or before plugging orders are requested. All water shows must be reported within one (1) business day after being encountered.

All usable (<10,000 PPM TDS) water and prospectively valuable minerals (as described by BLM at onsite) encountered during drilling will be recorded by depth and adequately protected. This information shall be reported to the Vernal Office.

Detected water flows shall be sampled, analyzed, and reported to the geologic & engineering staff of the Vernal Office. The office may request additional water samples for further analysis. Usage of the State of Utah form *Report of Water Encountered* is acceptable, but not required.

The following information is requested for water shows and samples where applicable:

Location & Sampled Interval	Date Sampled
Flow Rate	Temperature
Hardness	pH
Water Classification (State of Utah)	Dissolved Calcium (Ca) (mg/l)
Dissolved Iron (Fe) (ug/l)	Dissolved Sodium (Na) (mg/l)

Dissolved Magnesium (Mg) (mg/l)  
Dissolved Bicarbonate (NaHCO<sub>3</sub>) (mg/l)  
Dissolved Sulfate (SO<sub>4</sub>) (mg/l)

Dissolved Carbonate (CO<sub>3</sub>) (mg/l)  
Dissolved Chloride (Cl) (mg/l)  
Dissolved Total Solids (TDS) (mg/l)

#### 4. PROPOSED CASING PROGRAM

##### a. Casing Design

Description	Interval		Weight (lb/ft)	Grade	Coupling	Pore Press @ Shoe	MW @ Shoe	Frac Grad @ Shoe	Design Factors		
	Top	Btm							Burst	Collapse	Tension
Surface 8-5/8"	0'	300'	24.0	J-55	STC	8.33	8.33	12.0	15.02	12.30	29.05
Prod 5-1/2"	0'	6015' TVD 10811' MD	15.5	J-55	LTC	8.33	8.5	--	2.51	2.11	2.33

Assumptions:

- 1) Surface casing MASP = (frac gradient + 1.0 ppg) - gas gradient
- 2) Interm casing MASP = frac gradient - seawater gradient
- 3) Production casing MASP (production mode) = reservoir pressure - gas gradient
- 4) All collapse calculations assume fully evacuated casing = mud weightTD - gas gradient
- 5) All tension calculations assume air weight

All casing shall be new.

All casing strings shall have a minimum of 1 (one) centralizer on each of the bottom three (3) joints.

##### b. Cement Design

Job	Fill	Description	Sacks FT <sup>3</sup>	Excess	Weight (ppg)	Yield (ft <sup>3</sup> /sk)
Surface Casing	300'	Class G w/ 2% CaCl <sub>2</sub> , 0.25 lbs/sk Cello Flake	138 161	30%	15.8	1.17
Prod Casing Lead	4,000'	Prem Lite II w/ 3% KCl, 2% Bentonite (or equivalent cement)	258 901	30%	11.0	3.49
Prod Casing Tail	6,811'	50/50 Poz Class G w/ 3% KCl, 2% Bentonite (or equivalent cement)	1237 1534	30%	14.3	1.24

A 12-1/4" hole will be drilled for the surface casing. A 7-7/8" hole will be drilled vertically, for the curve, and for the lateral. The 5-1/2" production casing will be set in 7-7/8" hole size.

Actual cement volumes will be calculated from open hole logs, plus 15% excess.

Waiting On Cement: A minimum of four (4) hours shall elapse prior to attempting any pressure testing of the BOP equipment which would subject the surface casing cement to pressure, and a minimum of six (6) hours shall elapse before drilling out of the wiper plug, cement, or shoe is begun. WOC time shall be recorded in the Driller's Log. Compressive Strength shall be a minimum of 500 psi prior to drilling out.



The Vernal BLM Office shall be notified, with sufficient lead time, in order to have a BLM representative on location while running all casing strings and cementing.

The 8-5/8" surface casing shall in all cases be cemented back to surface. In the event that during the primary surface cementing operation the cement does not circulate to surface, or if the cement level should fall back more than 8 feet from surface, then a remedial surface cementing operation shall be performed to insure adequate isolation and stabilization of the surface casing.

The production casing cementing program shall be conducted as approved to protect and/or isolate all usable water zones, potentially productive zones, lost circulation zones, abnormally pressured zones, and any prospectively valuable deposits of minerals.

The minimum diameter for conductor pipe shall be 13 3/8". The conductor pipe will be cemented back to surface or removed.

As a minimum, usable water zones shall be isolated and/or protected by having a cement top for the production casing at least 200 feet above the base of the usable water. If gilsonite is encountered while drilling, it shall be isolated and/or protected via the cementing program.

Top plugs shall be used to reduce contamination of cement by displacement fluid. A bottom plug or other acceptable technique, such as a suitable preflush fluid, inner string cement method, etc., shall be utilized to help isolate the cement from contamination by the mud being displaced ahead of the cement slurry.

All casing strings below the conductor shall be pressure tested to 0.22 psi per foot of casing string length or to 1500 psi, whichever is greater, but not to exceed 70% of the minimum internal yield. If pressure declines more than 10% in 30 minutes, corrective action shall be taken.

A Form 3160-5, "Sundry Notices and Reports on Wells" shall be filed with the Vernal Office Manager within 30 days after the work is completed. This report must include the following information:

Setting of each string of casing showing the size, grade, weight of casing set, depth, amounts and type of cement used, whether cement circulated or the top of the cement behind the casing, depth of the cementing tools used, casing test method and results, and the date of the work done. Spud date will be shown on the first reports submitted.

Please refer to the Monument Butte Field Standard Operation Procedure (SOP).

**5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:**

The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc for a 2M system.

A 2000 psi WP hydraulic BOP stack consisting of two ram preventers (double or two singles) and a rotating head per **Exhibit C**. This system will be in accordance to the specifications listed in the Standard Operating Procedures for the Greater Monument Butte Green River Development Program.

Function test of the BOP equipment shall be made daily. All required BOP tests and/or drills shall be recorded in the Driller's report.

Chart recorders will be used for all pressure tests. Test charts, with individual test results identified, shall be maintained on location while drilling and shall be made available to BLM representatives upon request.

If an air compressor is on location and is being utilized to provide air for the drilling medium while drilling, the special drilling requirements in Onshore Oil and Gas Order No. 2 regarding air or gas shall be adhered to. If a mist system is being utilized, the requirement for a deduster shall be waived.

**6. TYPE AND CHARACTERISTICS OF THE PROPOSED CIRCULATION MUDS:**

From surface to 300', an air system will be used. From 300' to TD, a fresh water or brine water system will be utilized. Anticipated maximum mud weight is 9.0 lbs/gal. If necessary to control formation fluids or pressure, the system will be weighted with the addition of bentonite gel, and if pressure conditions warrant, with barite.

No chromate additives will be used in the mud system on Federal and/or Indian lands without prior BLM approval to ensure adequate protection of fresh aquifers.

No chemicals subject to reporting under SARA Title III in an amount equal to or greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completing of this well.

Hazardous substances specifically listed by the EPA as a hazardous waste or demonstrating a characteristic of a hazardous waste will not be used in drilling, testing, or completion operations.

**7. AUXILIARY SAFETY EQUIPMENT TO BE USED:**

**8. TESTING, LOGGING AND CORING PROGRAMS:**

**a. Logging Program:**

(the log types run may change at the discretion of the geologist)

FDC/CNL/GR/DIL: TD - 3,200'

CBL: A cement bond log will be run from KOP to the cement top of the production casing.  
A field copy will be submitted to the Vernal BLM Office.

**b. Cores: As deemed necessary.**

**c. Drill Stem Tests: No DSTs are planned in the Green River/Wasatch section. It is possible that DST may be required in the Green River Formation.**

Drill stem tests, if they are run, will adhere to the following requirements: Initial opening of the drill stem test tools shall be restricted to daylight hours unless specific approval to start during other hours is obtained from the Authorized Officer (AO). However, DSTs may be allowed to continue at night if the test was initiated during daylight hours and the rate of flow is stabilized and if adequate lighting is available ( i.e., lighting which is adequate for visibility and vapor-proof for safe operations). Packers can be released but tripping shall not begin before daylight, unless prior approval is obtained from the AO. Closed chamber DSTs may be performed day or night.

Some means of reverse circulation shall be provided in case of flow to the surface showing evidence of hydrocarbons.

Separation equipment required for the anticipated recovery shall be properly installed before a test starts.

If a DST is performed, all engines within 100 feet of the wellbore that are required to be operational during the test shall have spark arresters or water-cooled exhausts.

Please refer to the Monument Butte Field Standard Operation Procedure (SOP).

9. **ANTICIPATED ABNORMAL PRESSURE OR TEMPERATURE:**

There is no abnormal pressure or temperature expected. Maximum anticipated bottomhole pressure will be approximately equal total depth in feet multiplied by a 0.433 psi/foot gradient.

10. **ANTICIPATED STARTING DATE AND DURATION OF THE OPERATIONS:**

**a. Drilling Activity**

Anticipated Commencement Date:	Upon approval of the site specific APD.
Drilling Days:	Approximately 10 days.
Completion Days:	Approximately 12 - 20 days.

**b. Notification of Operations**

The Vernal BLM office will be notified at least 24 hours **prior** to the commencement of spudding the well (to be followed with a Sundry Notice, Form 3160-5), of initiating pressure tests of the blowout preventer and related equipment, and running casing and cementing of all casing strings. Notification will be made during regular work hours (7:45 a.m.-4:30 p.m., Monday - Friday except holidays).

**Immediate Report:** Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported in accordance with the appropriate regulations, Onshore Orders, or BLM policy.

No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in suspended status without prior approval from the AO. If operations are to be suspended, prior approval of the AO will be obtained and notification given to the BLM before resumption of operations.

Daily drilling and completion reports shall be submitted to the Vernal BLM Office on a weekly basis.

Whether the well is completed as a dry hole or a producer, the "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. One copy of all logs, core descriptions, core analyses, well test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations will be filed with Form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the Authorized Officer (AO).

A completion rig will be used for completion operations after the wells are stimulated to run the production tubing.. All conditions of this approved plan will be applicable during all operations conducted with the completion rig.

Operator shall report production data to the MMS pursuant to 30 CFR 216.5 using form MMS/3160. In accordance with Onshore Oil and Gas Order No. 1, a well will be reported on form 3160-6, "Monthly Report of Operations," starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report will be filed with the Vernal BLM Office.

The date on which production is commenced or resumed will be construed for oil wells as the date on which liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated, or the date on which liquid hydrocarbons are first produced into a permanent storage facility, whichever occurs first; and for gas wells, as the date on which associated liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated, or the date on which gas is measured through permanent metering facilities, whichever occurs first.

Should the well be successfully completed for production, the AO will be notified when the well is placed in a producing status. Such notification will be sent by written communication not later than 5 days following the date when the well is placed on production.

Pursuant to Onshore Order No. 7, with the approval of the AO, produced water may be temporarily disposed of into unlined pits for a period of up to 90 days. During this period, an application for approval of the permanent disposal method must be submitted to the AO.

Pursuant to NTL-4A, lessees or operators are authorized to vent/flare gas during the initial well evaluation tests, not to exceed 30 days or the production of 50 MMCF of gas, whichever occurs first. An application must be filed with the AO and approval received for any venting/flaring of gas beyond the initial 30 days or authorized test period.

A schematic facilities diagram, as required by 43 CFR 3162.7-5(b.9.d), shall be submitted to the Vernal BLM Office within 60 days of installation or first production, whichever occurs first. All site security regulations, as specified in Onshore Oil & Gas Order No. 3, shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with 43 CFR 3162.7-5(b.4).

Well abandonment operations shall not be commenced without the prior approval of the AO. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the AO. A "Subsequent Report of Abandonment", Form 3160-5, will be filed with the Authorized Officer within 30 days following completion of the well for abandonment. This report will indicate placement of the plugs and current status of the surface restoration. Final Abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the AO, or the appropriate surface managing agency.

Pursuant to Onshore Oil and Gas Order No. 1, lessees and operators have the responsibility to see that their exploration, development, production, and construction operations are conducted in a manner which conforms with applicable Federal laws and regulations and with the State and local laws, to the extent to which they are applicable, to operations on Federal or Indian lands.

Please refer to the Monument Butte Field Standard Operation Procedure (SOP).

## 2-M SYSTEM

Blowout Prevention Equipment Systems

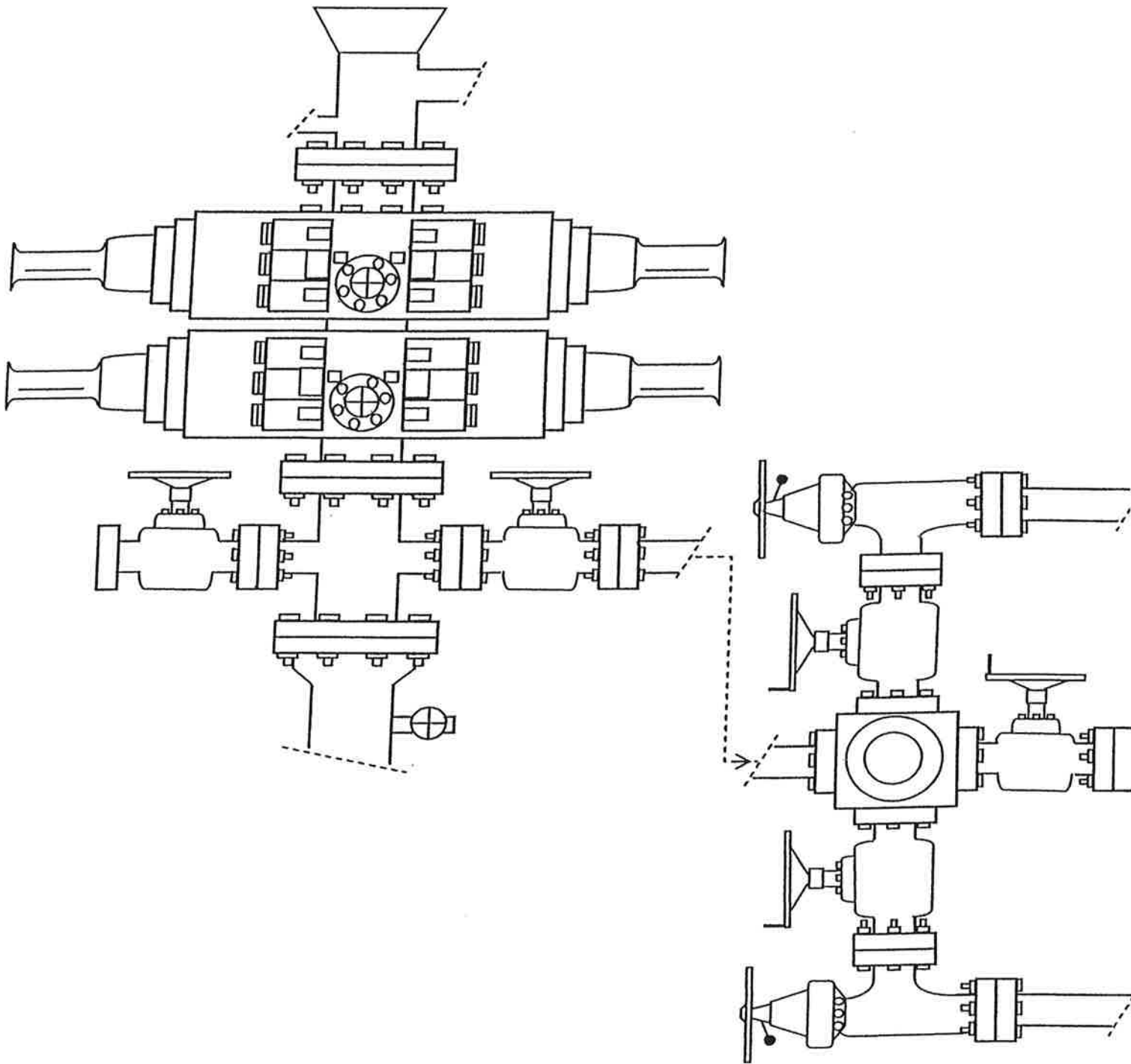
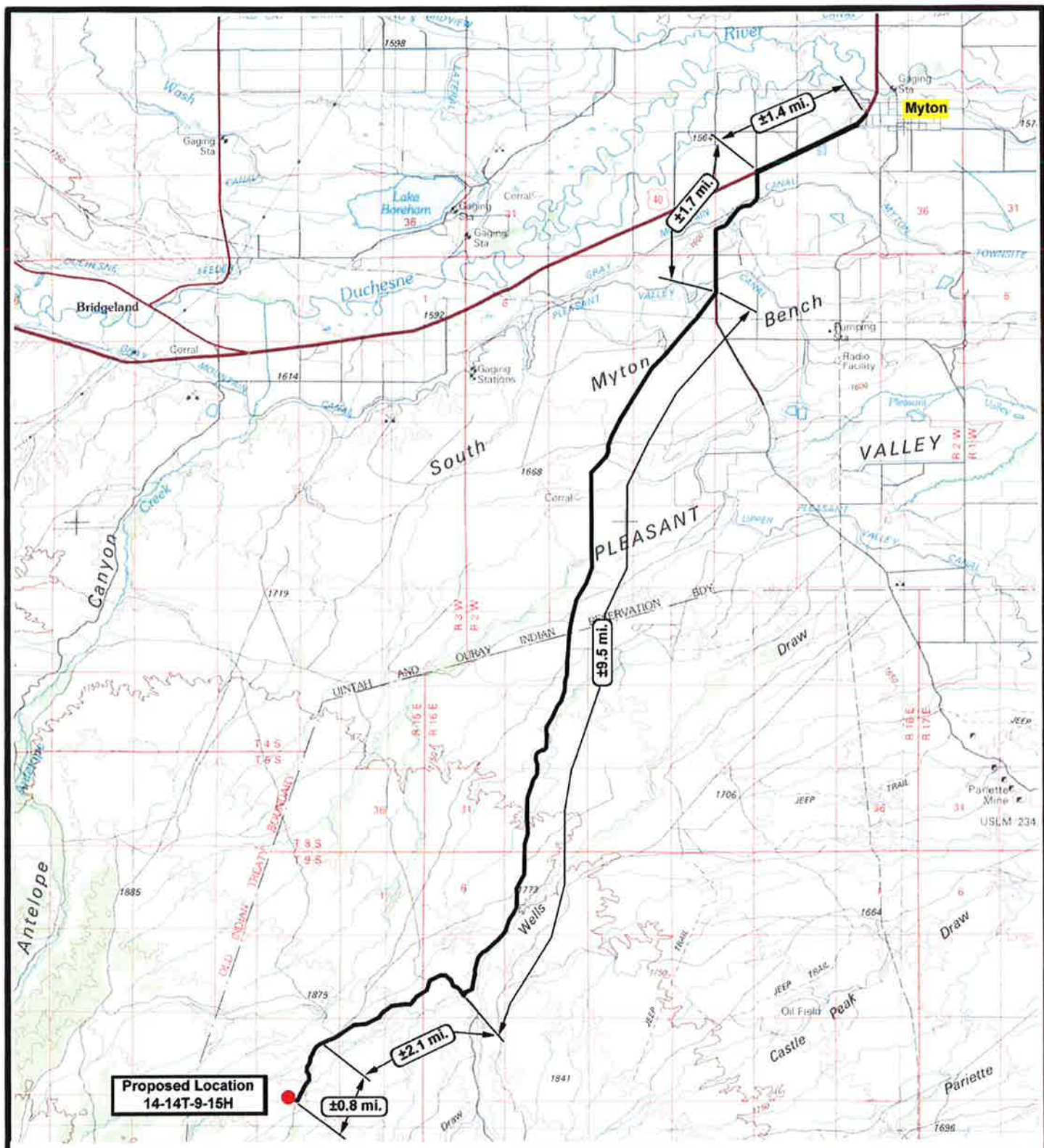


EXHIBIT C



**NEWFIELD**  
Exploration Company

**14-14T-9-15H**  
**SEC. 14, T9S, R15E, S.L.B.&M.**



**Tri-State**  
Land Surveying Inc.  
(435) 781-2501  
180 North Vernal Ave. Vernal, Utah 84078

SCALE: 1 = 100,000

DRAWN BY: mw

DATE: 01-28-2010

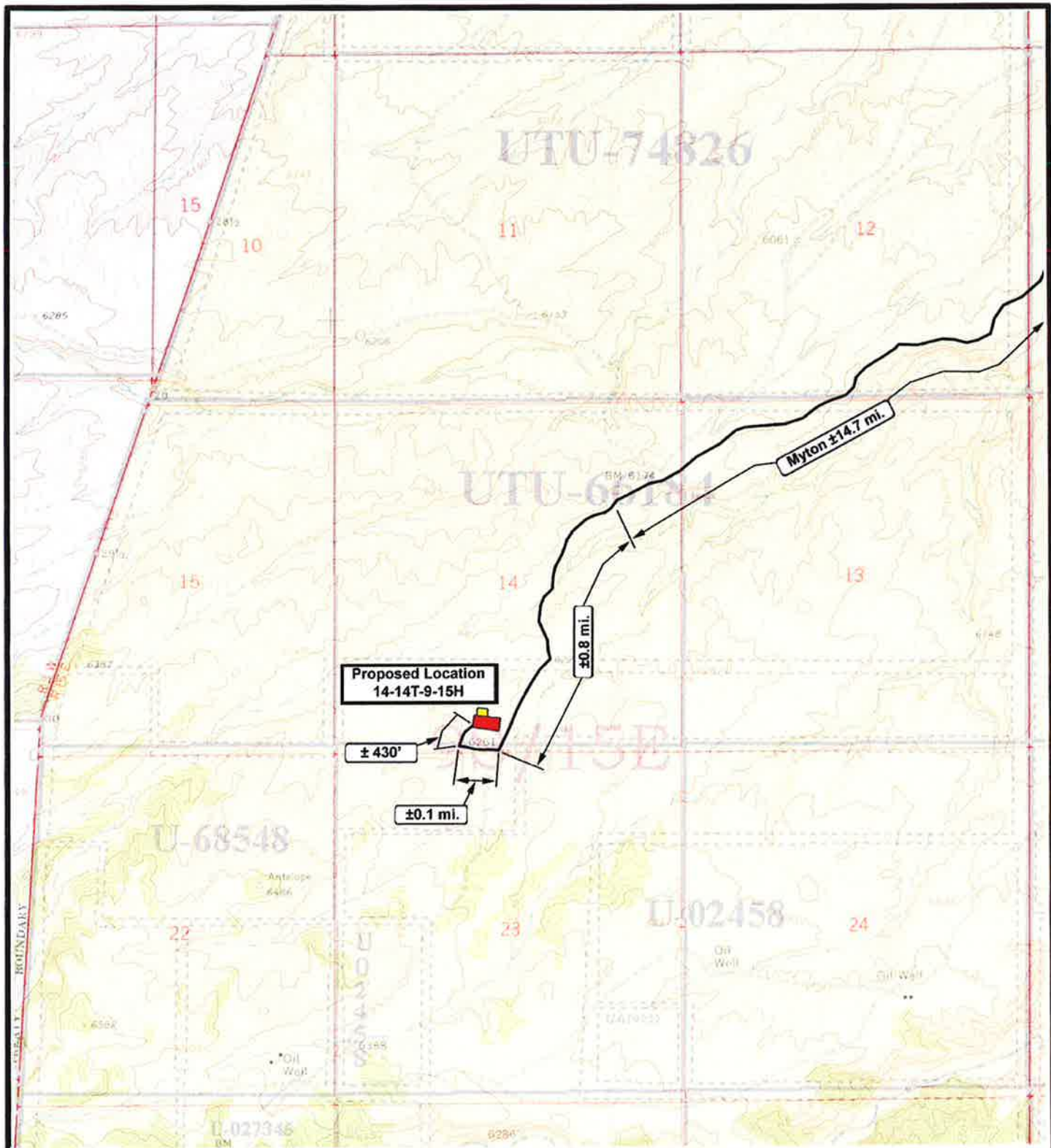
**Legend**

- Existing Road
- Proposed Access

TOPOGRAPHIC MAP

**"A"**





**NEWFIELD**  
Exploration Company

**14-14T-9-15H**  
**SEC. 14, T9S, R15E, S.L.B.&M.**



**Tri-State**  
Land Surveying Inc.  
(435) 781-2501  
180 North Vernal Ave. Vernal, Utah 84078

SCALE: 1" = 2,000'

DRAWN BY: mw

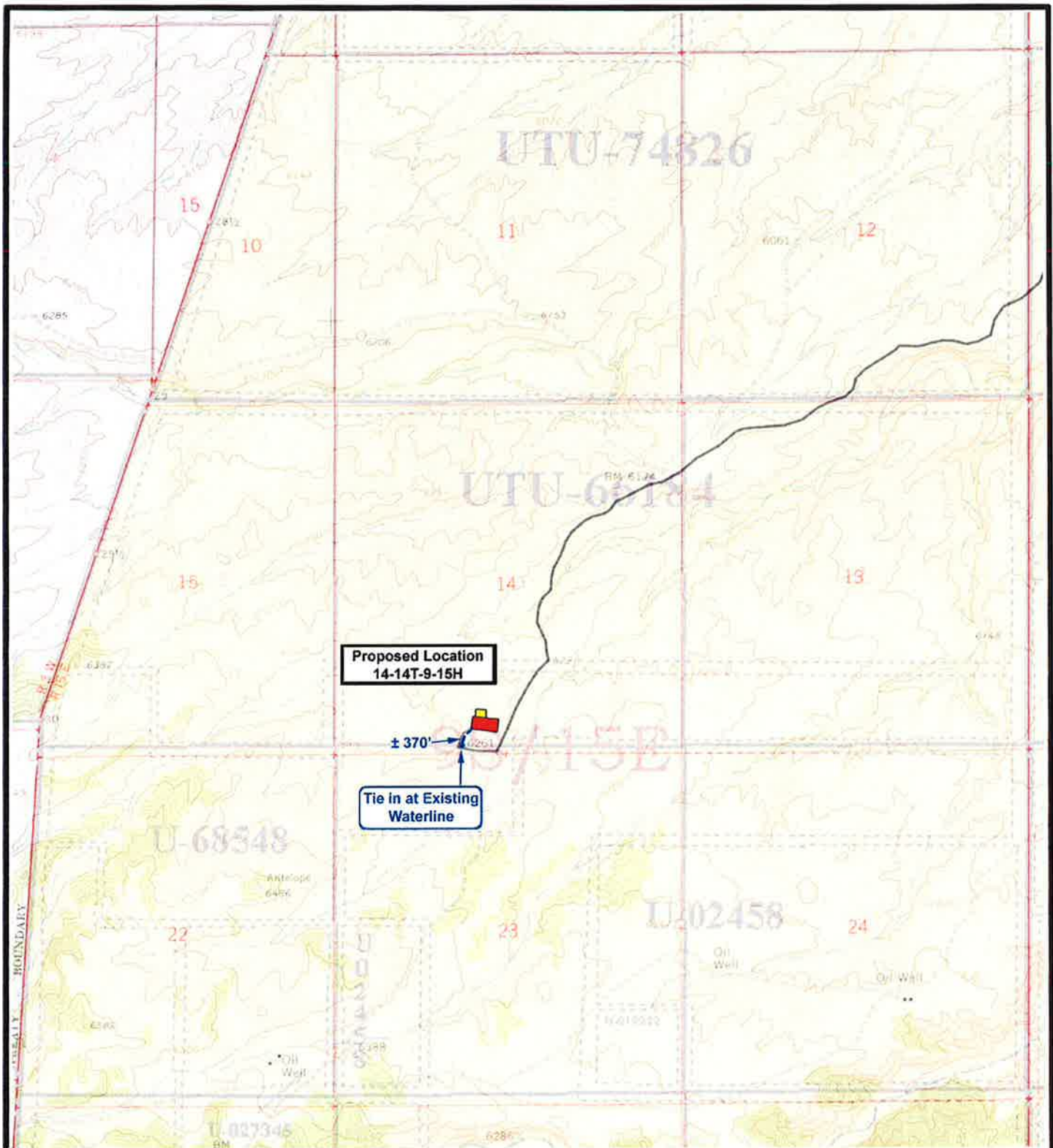
DATE: 01-29-2010




**Legend**

- Existing Road
- Proposed Access

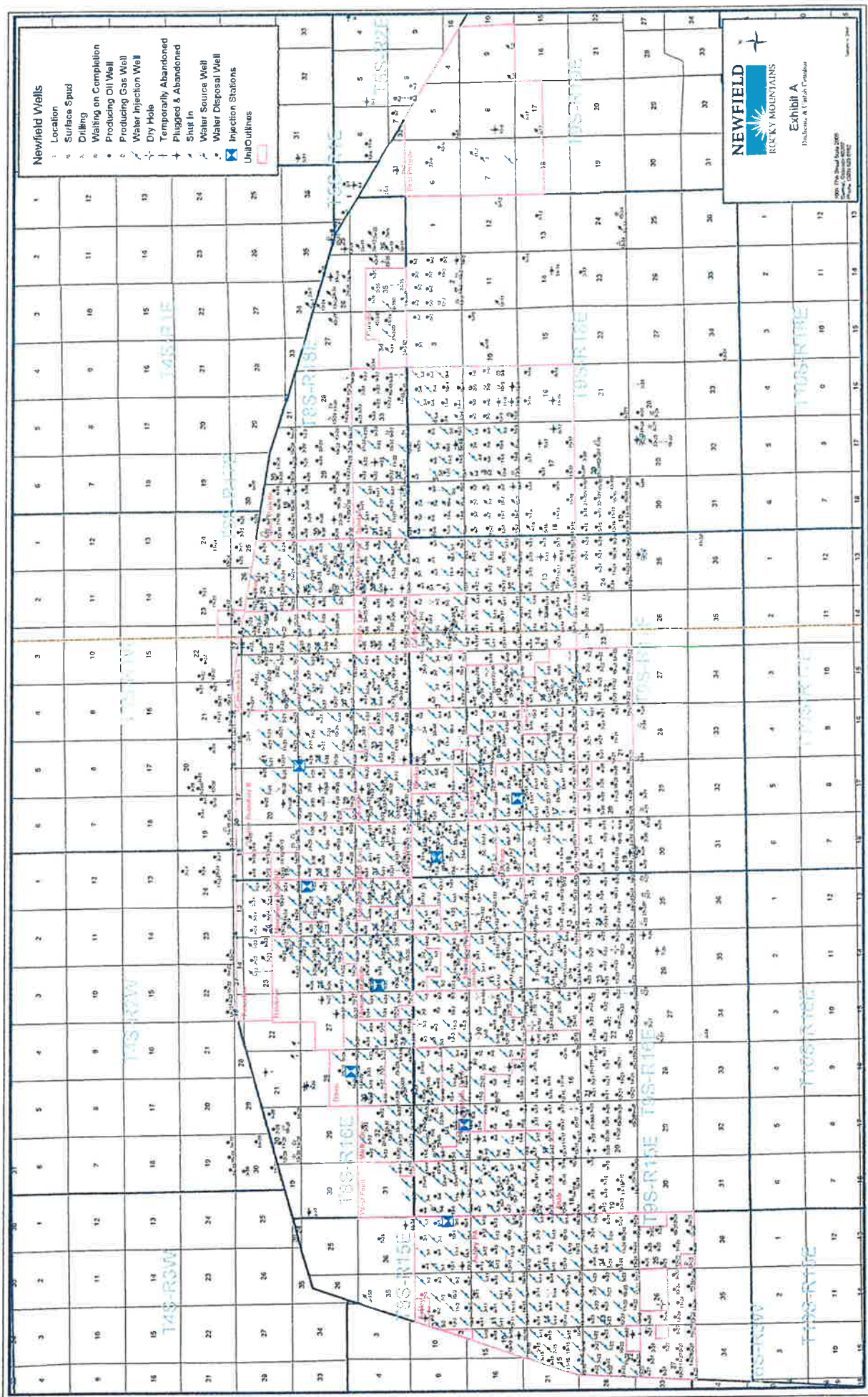
TOPOGRAPHIC MAP

**"B"**

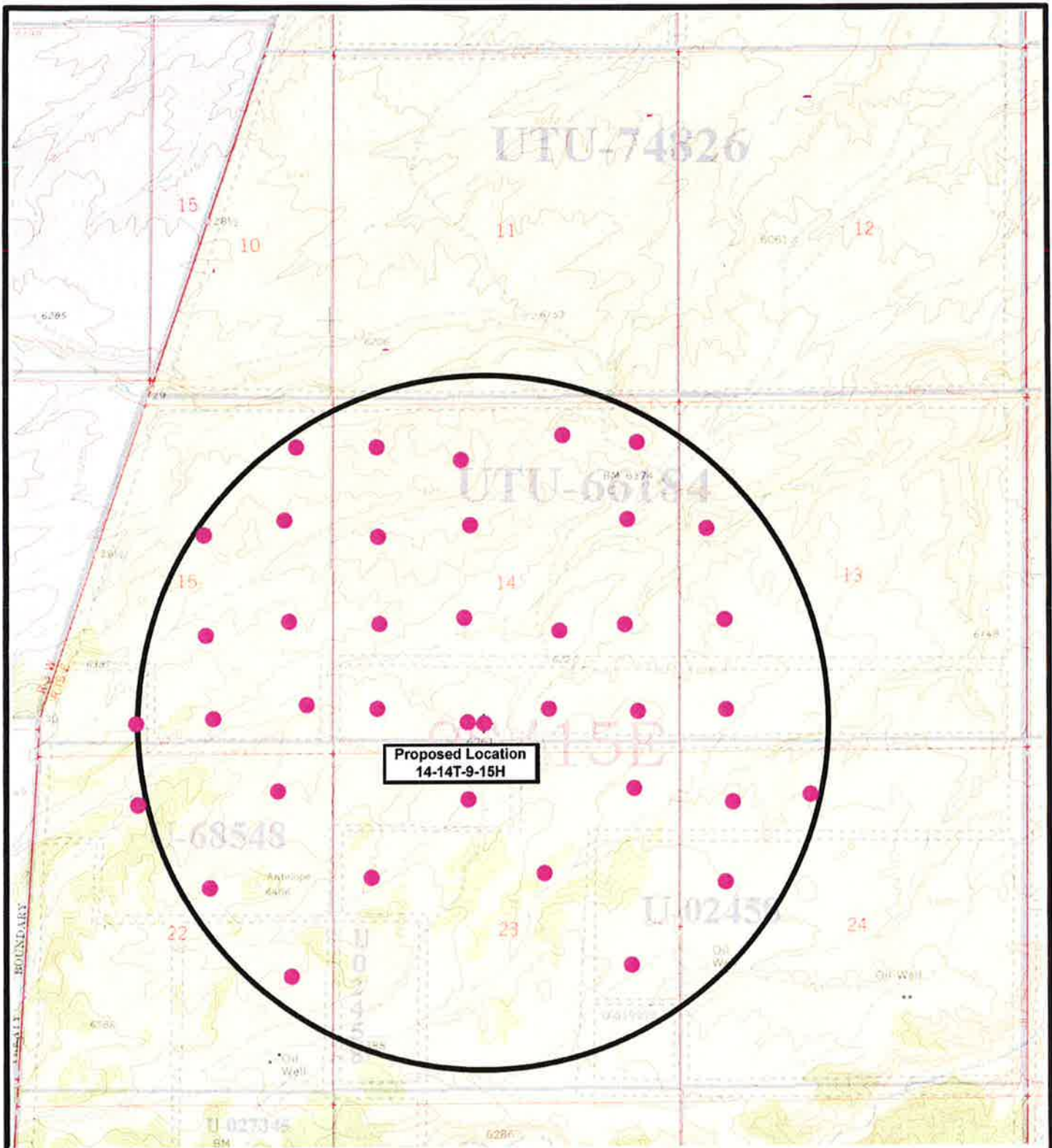


 <p><b>NEWFIELD</b> Exploration Company</p>		 <p><b>Tri-State</b> Land Surveying Inc. (435) 781-2501 180 North Vernal Ave. Vernal, Utah 84078</p>	<p><b>Legend</b></p> <ul style="list-style-type: none"> <li>Roads</li> <li>Proposed Gas Line</li> <li>Proposed Water Line</li> </ul>
<p><b>14-14T-9-15H</b> <b>SEC. 14, T9S, R15E, S.L.B.&amp;M.</b></p>		<p>SCALE: 1" = 2,000'</p> <p>DRAWN BY: mw</p> <p>DATE: 01-29-2010</p>	<p>TOPOGRAPHIC MAP</p> <p><b>"C"</b></p>



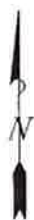






**NEWFIELD**  
Exploration Company

**14-14T-9-15H**  
**SEC. 14, T9S, R15E, S.L.B.&M.**



**Tri-State**  
Land Surveying Inc.  
(435) 781-2501  
180 North Vernal Ave. Vernal, Utah 84078

**SCALE: 1" = 2,000'**

**DRAWN BY: mw**

**DATE: 01-28-2010**

**Legend**

- Location
- One-Mile Radius

**Exhibit "B"**

**NEWFIELD PRODUCTION COMPANY  
GREATER MONUMENT BUTTE 14-14T-9-15H  
AT SURFACE: SE/SW SECTION 14, T9S, R15E  
DUCHESNE COUNTY, UTAH**

**ONSHORE ORDER NO. 1**

**MULTI-POINT SURFACE USE & OPERATIONS PLAN**

**1. EXISTING ROADS**

See attached Topographic Map "A"

To reach Newfield Production Company well location site Greater Monument Butte 14-14T-9-15H located in the SE 1/4 SW 1/4 Section 14, T9S, R15E, Duchesne County, Utah:

Proceed southwesterly out of Myton, Utah along Highway 40 - 1.4 miles  $\pm$  to the junction of this highway and UT State Hwy 53; proceed southwesterly - 11.2 miles  $\pm$  to it's junction with an existing dirt road to the northwest; proceed northwesterly and then southwesterly - 2.9 miles  $\pm$  to it's junction with an existing road to the west; proceed westerly - 0.1 miles  $\pm$  to it's junction with an existing road to the north; proceed northeasterly along the access road - 430'  $\pm$  to the existing 14-14-9-15 well location.

**2. PLANNED ACCESS ROAD**

See Topographic Map "B" for the location of the proposed access road.

**3. LOCATION OF EXISTING WELLS**

Refer to Exhibit "B".

**4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES**

All permanent surface equipment will be painted Olive Black.  
Please refer to the Monument Butte Field Standard Operating Procedure (SOP).

**5. LOCATION AND TYPE OF WATER SUPPLY**

Newfield Production will transport water by truck from nearest water source as determined by a Newfield representative for the purpose of drilling the above mentioned well. The available water sources are as follows:

Johnson Water District  
Water Right : 43-7478

Neil Moon Pond  
Water Right: 43-11787

Maurice Harvey Pond  
Water Right: 47-1358

Newfield Collector Well  
Water Right: 41-3530 (A30414DV, contracted with the Duchesne County Conservancy District).

Please refer to the Monument Butte Field SOP. See Exhibit "A".

6. **SOURCE OF CONSTRUCTION MATERIALS**

Please refer to the Monument Butte Field SOP.

7. **METHODS FOR HANDLING WASTE DISPOSAL**

Please refer to the Monument Butte Field SOP.

8. **ANCILLARY FACILITIES**

Please refer to the Monument Butte Field SOP.

9. **WELL SITE LAYOUT**

See attached Location Layout Diagram.

10. **PLANS FOR RESTORATION OF SURFACE**

Please refer to the Monument Butte Field SOP.

11. **SURFACE OWNERSHIP** - Bureau Of Land Management (Proposed location and access roads leading to).

12. **OTHER ADDITIONAL INFORMATION**

The Archaeological Resource Survey and Paleontological Resource Survey for this area are attached. MOAC Report #01-163, 5/23/02. Paleontological Resource Survey prepared by, Wade E. Miller, 6/7/03. See attached report cover pages, Exhibit "D".

Newfield Production Company requests 370' of disturbed area be granted in Lease UTU-68548 to allow for construction of the proposed water lines. It is proposed that the disturbed area will temporarily be 50' wide to allow for construction of a buried 3" steel water injection line and a buried 3" poly water return line and 30' wide upon completion of the proposed water lines. **Refer to Topographic Map "C."** For a ROW plan of development, please refer to the Monument Butte Field SOP. In the event that the proposed well is converted to a water injection well, a separate injection permit will be applied for through the proper agencies.

**Water Disposal**

Immediately upon first production, all produced water will be confined to a steel storage tank. If the production water meets quality guidelines, it is transported to the Ashley, Monument Butte, Jonah, and Beluga water injection facilities by company or contract trucks. Subsequently, the produced water is injected into approved Class II wells to enhance Newfield's secondary recovery project.

Water not meeting quality criteria, is disposed at Newfield's Pariette #4 disposal well (Sec. 7, T9S R19E), State of Utah approved surface disposal facilities, or Federally approved surface disposal facilities.

**Threatened, Endangered, And Other Sensitive Species**

None for the proposed Greater Monument Butte 14-14T-9-15H

**Reserve Pit Liner**

A 16 mil liner with felt is required. Please refer to the Monument Butte Field SOP.

**Location and Reserve Pit Reclamation**

Please refer to the Monument Butte Field SOP and as well as the Castle Peak and Eight Mile Flat Reclamation and Weed Management Plan.

The following seed mixture will be used on the topsoil stockpile, to the recontoured surface of the reserve pit, and for final reclamation: (All poundages are in pure live seed)

Squirrell Tail	<i>Elymus Elymoides</i>	6 lbs/acre
Siberian Wheatgrass	<i>Agropyron Fragile</i>	2 lbs/acre
Gardner Saltbush	<i>Atriplex Gardneri</i>	1 lbs/acre
Shadscale	<i>Atriplex Confertifolia</i>	1 lbs/acre
Fourwing Saltbush	<i>Atriplex Canescens</i>	1 lbs/acre
Scarlet Globemallow	<i>Sphaeralcea Conccinea</i>	0.20 lbs/acre
Forage Kochia	<i>Kochia Prostrata</i>	0.20 lbs/acre

**Details of the On-Site Inspection**

The proposed Greater Monument Butte 14-14T-9-15H was on-sited on 12/16/09. The following were present; Tim Eaton (Newfield Production) and James Herford (Bureau of Land Management). Weather conditions were clear and ground cover was 20% open.

**LESSEE'S OR OPERATORS REPRESENTATIVE AND CERTIFICATION**

Representative

Name: Tim Eaton  
Address: Route #3 Box 3630  
Myton, UT 84052  
Telephone: (435) 646-3721

Certification

Please be advised that NEWFIELD PRODUCTION COMPANY is considered to be the operator of well #14-14T-9-15H SE/SW Section 14, Township 9S, Range 15E: Lease UTU-68548 Duchesne County, Utah: and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by, Federal Bond #WYB000493.

I hereby certify that the proposed drill site and access route have been inspected, and I am familiar with the conditions which currently exist; that the statements made in this plan are true and correct to the best of my knowledge; and that the work associated with the operations proposed here will be performed by Newfield Production Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

1/28/10

Date

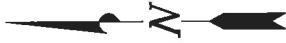
  
Mandie Crozier  
Regulatory Specialist  
Newfield Production Company

# NEWFIELD PRODUCTION COMPANY

## WELL PAD INTERFERENCE PLAT

### 14-14T-9-15H (Proposed Well)

Pad Location: SESW Section 14, T9S, R15E, S.L.B.&M.



(To Bottom Hole)  
N21°15'07"E 4857.80'

14-14T-9-15H (PROPOSED)

Future Pit

14-14-9-15 (EXISTING)

Existing  
Stockpile

Edge of Existing Pad

Existing  
Access

Edge of  
Proposed  
Pad

#### TOP HOLE FOOTAGES

14-14T-9-15H (PROPOSED)  
510' FSL & 2307' FWL

#### BOTTOM HOLE FOOTAGES

14-14T-9-15H (PROPOSED)  
283' FWL & 1150' FEL

**Note:**  
Bearings are based on  
GPS Observations.

#### RELATIVE COORDINATES From top hole to bottom hole

WELL	NORTH	EAST
14-14T-9-15H	4527'	1761'

#### LATITUDE & LONGITUDE Surface position of Wells (NAD 83)

WELL	LATITUDE	LONGITUDE
14-14T-9-15H	40° 01' 30.18"	110° 12' 02.13"

**Tri State**  
**Land Surveying, Inc.**  
180 NORTH VERNAL AVE. VERNAL, UTAH 84078  
(435) 781-2501

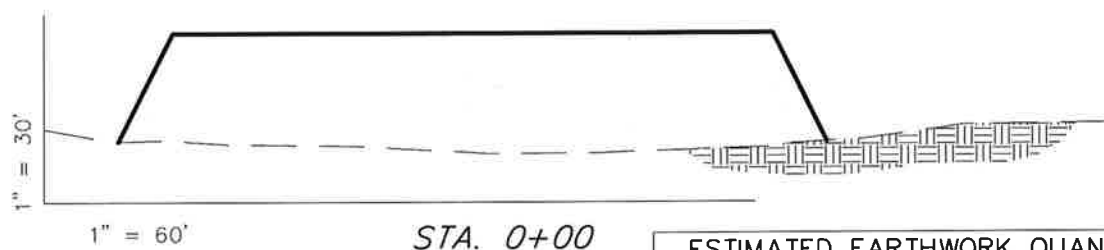
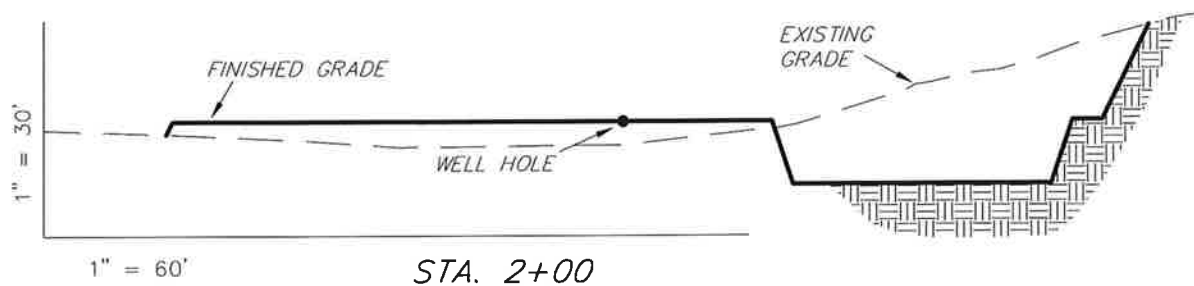
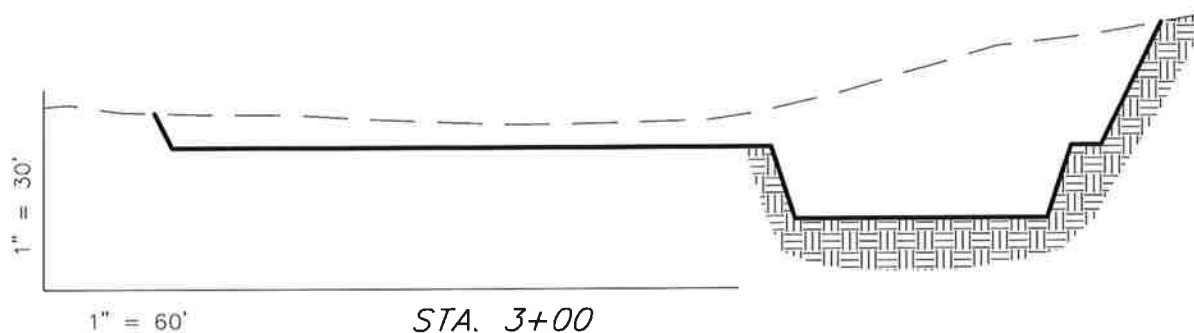
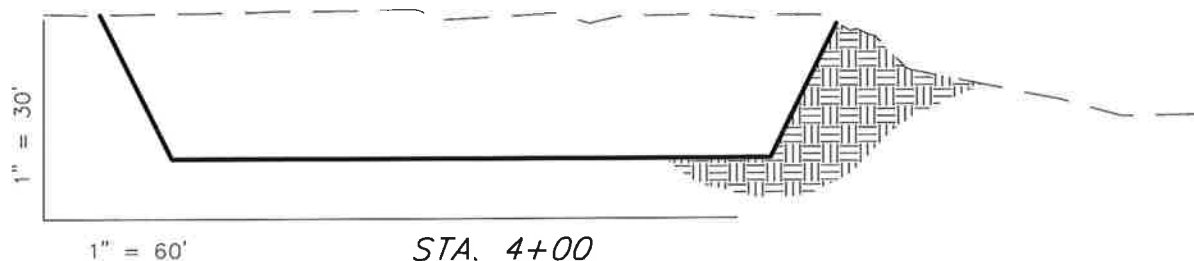
SURVEYED BY: C.M. DATE SURVEYED: 11-06-09  
DRAWN BY: F.T.M. DATE DRAWN: 11-20-09  
SCALE: 1" = 60' REVISED: F.T.M. - 01-29-10



# NEWFIELD PRODUCTION COMPANY

## CROSS SECTIONS

14-14T-9-15H



NOTE:  
UNLESS OTHERWISE NOTED  
CUT SLOPES ARE AT 1:1  
FILL SLOPES ARE AT 1.5:1

ESTIMATED EARTHWORK QUANTITIES (No Shrink or swell adjustments have been used) (Expressed in Cubic Yards)				
ITEM	CUT	FILL	6" TOPSOIL	EXCESS
PAD	13,530	13,530	Topsoil is not included in Pad Cut	0
PIT	4,100	0		4,100
TOTALS	17,630	13,530	2,260	4,100

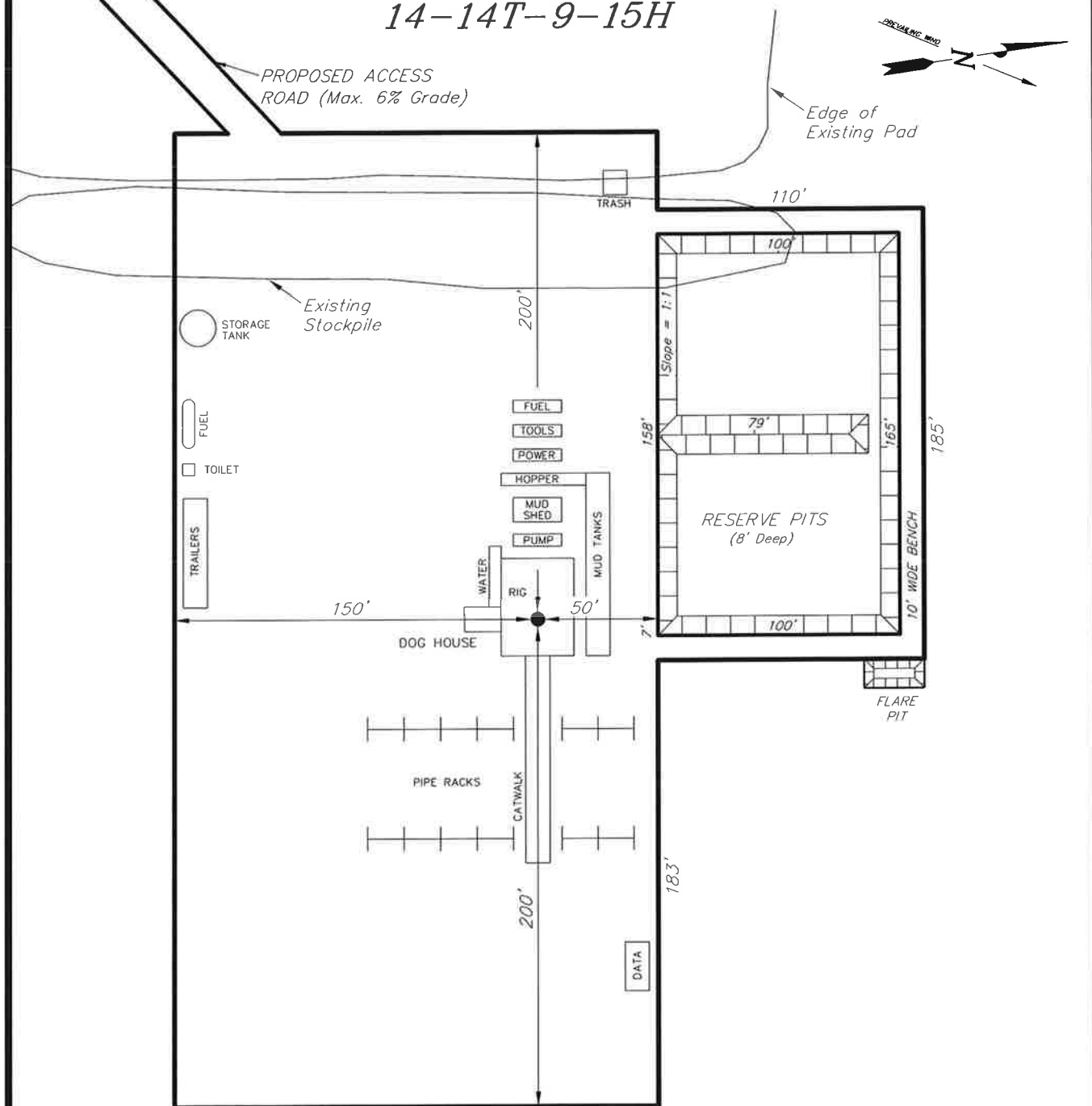
SURVEYED BY: C.M.	DATE SURVEYED: 01-05-10
DRAWN BY: M.W.	DATE DRAWN: 01-06-10
SCALE: 1" = 60'	REVISED: M.W. - 01-28-10

*Tri State*  
Land Surveying, Inc.  
(435) 781-2501  
180 NORTH VERNAL AVE. VERNAL, UTAH 84078



# NEWFIELD PRODUCTION COMPANY

## TYPICAL RIG LAYOUT 14-14T-9-15H



SURVEYED BY: C.M.	DATE SURVEYED: 01-05-10
DRAWN BY: M.W.	DATE DRAWN: 01-06-10
SCALE: 1" = 60'	REVISED: M.W. - 01-28-10

**Tri State**  
Land Surveying, Inc.  
180 NORTH VERNAL AVE. VERNAL, UTAH 84078

(435) 781-2501

# Newfield Production Company Proposed Site Facility Diagram

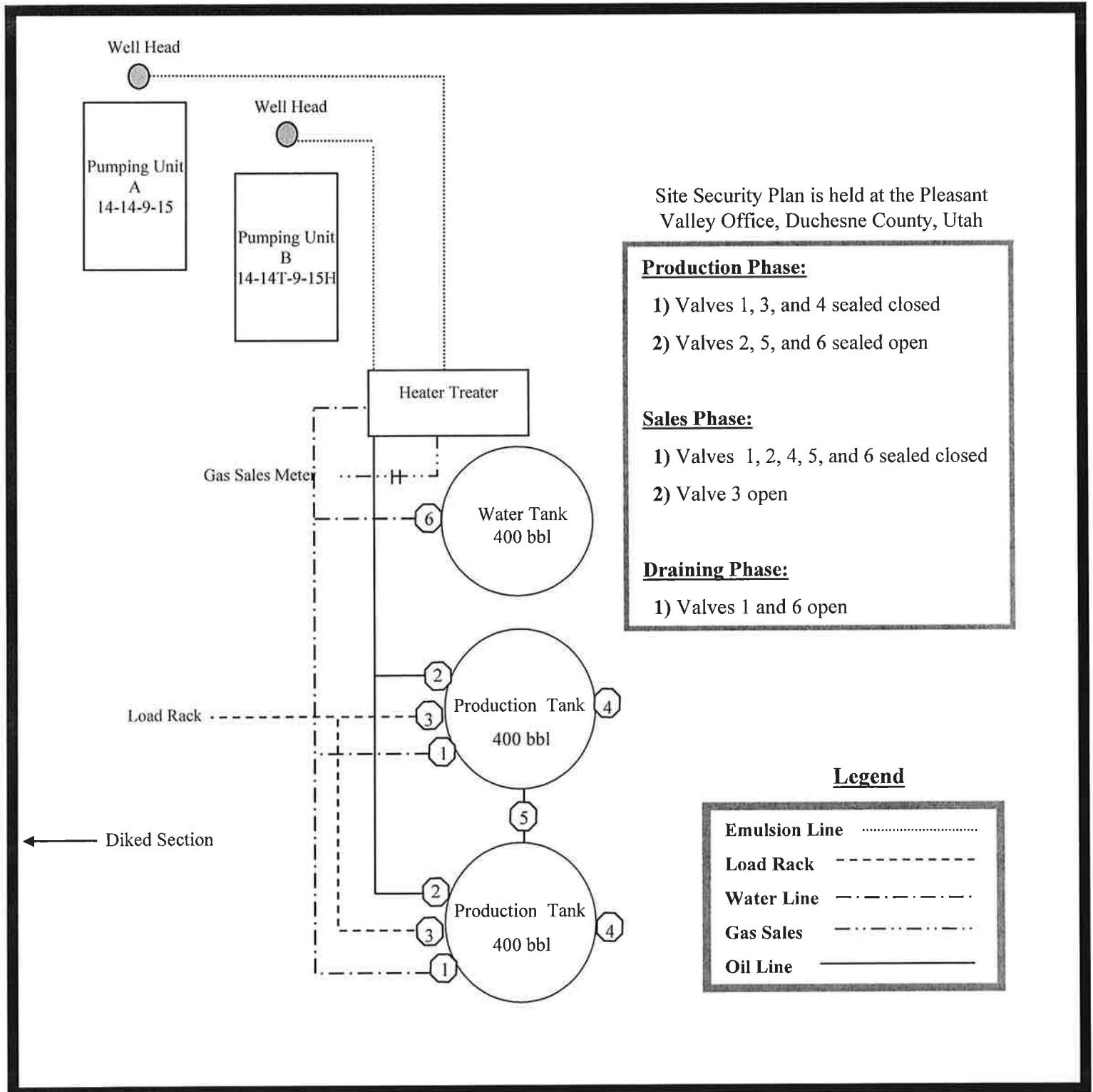
Greater Monument Butte 14-14T-9-15H

From the 14-14-9-15 Location

SE/SW Sec. 14 T9S, R15E

Duchesne County, Utah

UTU-68548



14-14T-9-15H

Exhibit "D"

1 of 2

CULTURAL RESOURCE INVENTORY OF  
INLAND RESOURCES' 1750 ACRE ASHLEY UNIT, IN  
TOWNSHIP 9S, RANGE 15E, SECTIONS 13, 14, AND 15,  
DUCHESNE COUNTY, UTAH

Anne Raney  
and  
Keith Montgomery

Prepared For:

Bureau of Land Management  
Vernal Field Office  
Vernal, Utah

Prepared Under Contract With:

Jon D. Holst & Associates  
for  
Inland Resources  
2507 Flintridge Place  
Fort Collins, CO 80521

Prepared By:

Montgomery Archaeological Consultants  
P.O. Box 147  
Moab, Utah 84532

MOAC Report No. 01-163

May 23, 2002

United States Department of Interior (FLPMA)  
Permit No. 02-UT-60122

State of Utah Antiquities Project (Survey)  
Permit No. U-02-MQ-0235b

**INLAND RESOURCES, INC.**

**PALEONTOLOGICAL FIELD SURVEY OF PROPOSED  
PRODUCTION DEVELOPMENT AREAS,  
DUCHESNE COUNTY, UTAH**

(South half Section 13, south half Section 14, south half Section 15,  
entire Sections 22, 23, 24, T 9 S, R 15 E; Section 5 minus SW &  
SE 1/4, SE 1/4, and existing well site at NW 1/4, NE 1/4, T 9 S, R 18 E)

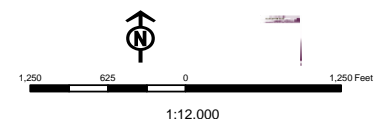
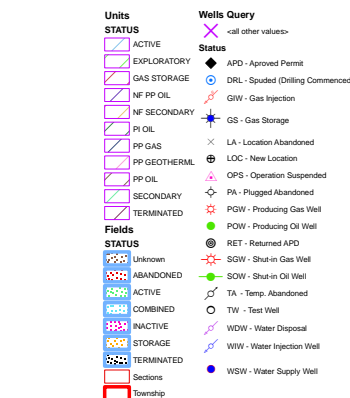
**REPORT OF SURVEY**

Prepared for:

**Inland Resources, Inc.**

Prepared by:

Wade E. Miller  
Consulting Paleontologist  
June 7, 2003



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office

P.O. Box 45155

Salt Lake City, Utah 84145-0155

**IN REPLY REFER TO:**

3160

(UT-922)

February 10, 2010

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2010 Plan of Development Greater Monument  
Butte Unit, Duchesne and Uintah Counties,  
Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following vertical and horizontal wells are planned for calendar year 2010 within the Greater Monument Butte Unit, Duchesne and Uintah Counties, Utah.

API#	WELL NAME	LOCATION
------	-----------	----------

(Proposed PZ GREEN RIVER)

43-013-34222	GMBBU 14-36-8-15H	Sec 36 T08S R15E 0502 FSL 2096 FWL
	Lateral 1	Sec 36 T08S R15E 0386 FNL 0824 FEL
43-013-50242	GMBU 14-14T-9-15H	Sec 14 T09S R15E 0510 FSL 2307 FWL
	Lateral 1	Sec 14 T09S R15E 0283 FNL 1150 FEL
43-013-50243	GMBU 15-22-9-15H	Sec 22 T09S R15E 0661 FSL 1978 FEL
	Lateral 1	Sec 15 T09S R15E 0172 FSL 0375 FEL
43-013-50244	GMBU I-2-9-16	Sec 02 T09S R16E 0750 FNL 0755 FEL
	BHL	Sec 02 T09S R16E 1207 FNL 1320 FEL
43-013-50248	GMBU E-1-9-16	Sec 01 T09S R16E 0787 FNL 0628 FWL
	BHL	Sec 01 T09S R16E 0010 FNL 0010 FWL
43-013-50249	GMBU D-1-9-16	Sec 01 T09S R16E 0775 FNL 0645 FWL
	BHL	Sec 01 T09S R16E 0010 FNL 1395 FWL
43-013-50250	GMBU M-1-9-16	Sec 01 T09S R16E 1998 FSL 1974 FWL
	BHL	Sec 01 T09S R16E 2630 FNL 2630 FEL
43-013-50251	GMBU N-1-9-16	Sec 01 T09S R16E 1965 FNL 0674 FWL
	BHL	Sec 01 T09S R16E 2635 FSL 1325 FWL

43-013-50252	GMBU C-26-8-16	Sec 23 T08S R16E 0635 FSL 1972 FWL
	BHL	Sec 26 T08S R16E 0010 FNL 2635 FEL
43-013-50253	GMBU A-11-9-16	Sec 01 T09S R16E 0856 FSL 0817 FWL
	BHL	Sec 11 T09S R16E 0010 FNL 0010 FEL
43-013-50254	GMBU T-2-9-16	Sec 01 T09S R16E 0871 FSL 0831 FWL
	BHL	Sec 02 T09S R16E 1325 FSL 0010 FEL
43-013-50255	GMBU F-2-9-16	Sec 03 T09S R16E 2103 FNL 0451 FEL
	BHL	Sec 02 T09S R16E 1390 FNL 0010 FWL
43-013-50256	GMBU O-2-9-16	Sec 03 T09S R16E 2113 FNL 0470 FEL
	BHL	Sec 02 T09S R16E 2451 FSL 0075 FWL
43-013-50257	GMBU H-1-9-16	Sec 01 T09S R16E 0679 FNL 1992 FEL
	BHL	Sec 01 T09S R16E 1325 FNL 2635 FWL
43-013-50258	GMBU R-26-8-16	Sec 26 T08S R16E 1970 FSL 2033 FEL
	BHL	Sec 26 T08S R16E 1310 FSL 2635 FWL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File - Greater Monument Butte Unit  
Division of Oil Gas and Mining  
Central Files  
Agr. Sec. Chron  
Fluid Chron

MCoulthard:mc:2-10-10

# WORKSHEET

## APPLICATION FOR PERMIT TO DRILL

**APD RECEIVED:** 1/29/2010

**API NO. ASSIGNED:** 43013502420000

**WELL NAME:** Greater Monument Butte 14-14T-9-15H

**OPERATOR:** NEWFIELD PRODUCTION COMPANY (N2695)

**PHONE NUMBER:** 435 646-4825

**CONTACT:** Mandie Crozier

**PROPOSED LOCATION:** SESW 14 090S 150E

**Permit Tech Review:** ☒

**SURFACE:** 0510 FSL 2307 FWL

**Engineering Review:** ☐

**BOTTOM:** 0283 FNL 1150 FEL

**Geology Review:** ☒

**COUNTY:** DUCHESNE

**LATITUDE:** 40.02507

**LONGITUDE:** -110.19992

**UTM SURF EASTINGS:** 568272.00

**NORTHINGS:** 4430637.00

**FIELD NAME:** MONUMENT BUTTE

**LEASE TYPE:** 1 - Federal

**LEASE NUMBER:** UTU-68548

**PROPOSED PRODUCING FORMATION(S):** GREEN RIVER

**SURFACE OWNER:** 1 - Federal

**COALBED METHANE:** NO

### RECEIVED AND/OR REVIEWED:

☒ **PLAT**

☒ **Bond:** FEDERAL - WYB000493

☐ **Potash**

☐ **Oil Shale 190-5**

☐ **Oil Shale 190-3**

☐ **Oil Shale 190-13**

☒ **Water Permit:** 43-7478

☐ **RDCC Review:**

☐ **Fee Surface Agreement**

☐ **Intent to Commingle**

**Commingle Approved**

### LOCATION AND SITING:

☐ **R649-2-3.**

**Unit:** GMBU (GRRV)

☐ **R649-3-2. General**

☐ **R649-3-3. Exception**

☒ **Drilling Unit**

**Board Cause No:** Cause 213-11

**Effective Date:** 11/30/2009

**Siting:** Suspends General Siting

☒ **R649-3-11. Directional Drill**

**Comments:** Presite Completed

**Stipulations:** 4 - Federal Approval - dmason  
15 - Directional - bhill





GARY R. HERBERT  
*Governor*

GREGORY S. BELL  
*Lieutenant Governor*

## State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
*Executive Director*

Division of Oil, Gas and Mining

JOHN R. BAZA  
*Division Director*

### Permit To Drill

\*\*\*\*\*

**Well Name:** Greater Monument Butte 14-14T-9-15H  
**API Well Number:** 43013502420000  
**Lease Number:** UTU-68548  
**Surface Owner:** FEDERAL  
**Approval Date:** 2/17/2010

**Issued to:**

NEWFIELD PRODUCTION COMPANY , Rt 3 Box 3630 , Myton, UT 84052

**Authority:**

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 213-11. The expected producing formation or pool is the GREEN RIVER Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

**Duration:**

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

**General:**

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

**Conditions of Approval:**

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

**Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well – contact Carol Daniels at 801-538-5284 (please leave a voicemail message if not available)

OR

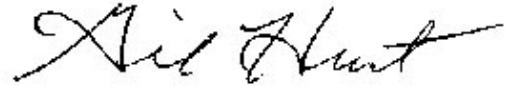
submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at <https://oilgas.ogm.utah.gov>

**Reporting Requirements:**

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) – due within 5 days of spudding the well
- Monthly Status Report (Form 9) – due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) – due prior to implementation
- Written Notice of Emergency Changes (Form 9) – due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) – due prior to implementation
- Report of Water Encountered (Form 7) – due within 30 days after completion
- Well Completion Report (Form 8) – due within 30 days after completion or plugging

**Approved By:**

A handwritten signature in black ink, appearing to read "Gil Hunt", with a stylized, flowing script.

Gil Hunt  
Associate Director, Oil & Gas

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU-68548
<b>1. TYPE OF WELL</b> Oil Well		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>2. NAME OF OPERATOR:</b> NEWFIELD PRODUCTION COMPANY		<b>7. UNIT or CA AGREEMENT NAME:</b> GMBU (GRRV)
<b>3. ADDRESS OF OPERATOR:</b> Rt 3 Box 3630 , Myton, UT, 84052		<b>8. WELL NAME and NUMBER:</b> Greater Monument Butte 14-14T-9-15H
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0510 FSL 2307 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: SESW Section: 14 Township: 09.0S Range: 15.0E Meridian: S		<b>9. API NUMBER:</b> 43013502420000
<b>PHONE NUMBER:</b> 435 646-4825 Ext		<b>9. FIELD and POOL or WILDCAT:</b> MONUMENT BUTTE
<b>COUNTY:</b> DUCHESNE		<b>STATE:</b> UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 8/10/2010  <input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:  <input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:  <input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input checked="" type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <span style="border: 1px solid black; padding: 2px;">Tight Hole Status</span>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  
 Newfield Requests that "Tight Hole Status" be placed on the above mention well.

**Accepted by the**  
**Utah Division of**  
**Oil, Gas and Mining**  
**FOR RECORD ONLY**  
 August 10, 2010

<b>NAME (PLEASE PRINT)</b> Mandie Crozier	<b>PHONE NUMBER</b> 435 646-4825	<b>TITLE</b> Regulatory Tech
<b>SIGNATURE</b> N/A		<b>DATE</b> 8/10/2010

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU-68548
<b>1. TYPE OF WELL</b> Oil Well		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>2. NAME OF OPERATOR:</b> NEWFIELD PRODUCTION COMPANY		<b>7. UNIT or CA AGREEMENT NAME:</b> GMBU (GRRV)
<b>3. ADDRESS OF OPERATOR:</b> Rt 3 Box 3630 , Myton, UT, 84052		<b>8. WELL NAME and NUMBER:</b> GREATER MON BUTTE 14-14T-9-15H
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0510 FSL 2307 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: SESW Section: 14 Township: 09.0S Range: 15.0E Meridian: S		<b>9. API NUMBER:</b> 43013502420000
<b>PHONE NUMBER:</b> 435 646-4825 Ext		<b>9. FIELD and POOL or WILDCAT:</b> MONUMENT BUTTE
<b>COUNTY:</b> DUCHESNE		<b>STATE:</b> UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 2/17/2011  <input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:  <input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:  <input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input checked="" type="checkbox"/> APD EXTENSION OTHER: <span style="border: 1px solid black; display: inline-block; width: 100px; height: 15px; vertical-align: middle;"></span>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  
 Newfield proposes to extend the Application for Permit to Drill this well for one year.

Approved by the  
Utah Division of  
Oil, Gas and Mining

Date: 02/09/2011

By:

<b>NAME (PLEASE PRINT)</b> Mandie Crozier	<b>PHONE NUMBER</b> 435 646-4825	<b>TITLE</b> Regulatory Tech
<b>SIGNATURE</b> N/A		<b>DATE</b> 2/8/2011



## The Utah Division of Oil, Gas, and Mining

- State of Utah  
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

### Request for Permit Extension Validation Well Number 43013502420000

**API:** 43013502420000

**Well Name:** GREATER MON BUTTE 14-14T-9-15H

**Location:** 0510 FSL 2307 FWL QTR SESW SEC 14 TWNP 090S RNG 150E MER S

**Company Permit Issued to:** NEWFIELD PRODUCTION COMPANY

**Date Original Permit Issued:** 2/17/2010

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- If located on private land, has the ownership changed, if so, has the surface agreement been updated? ☐ Yes ☒ No
- Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? ☐ Yes ☒ No
- Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? ☐ Yes ☒ No
- Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location? ☐ Yes ☒ No
- Has the approved source of water for drilling changed? ☐ Yes ☒ No
- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? ☐ Yes ☒ No
- Is bonding still in place, which covers this proposed well? ☒ Yes ☐ No

**Signature:** Mandie Crozier

**Date:** 2/8/2011

**Title:** Regulatory Tech **Representing:** NEWFIELD PRODUCTION COMPANY

**RECEIVED** Feb. 08, 2011

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU-68548
<b>1. TYPE OF WELL</b> Oil Well		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>2. NAME OF OPERATOR:</b> NEWFIELD PRODUCTION COMPANY		<b>7. UNIT or CA AGREEMENT NAME:</b> GMBU (GRRV)
<b>3. ADDRESS OF OPERATOR:</b> Rt 3 Box 3630 , Myton, UT, 84052		<b>8. WELL NAME and NUMBER:</b> GREATER MON BUTTE 14-14T-9-15H
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0510 FSL 2307 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: SESW Section: 14 Township: 09.0S Range: 15.0E Meridian: S		<b>9. API NUMBER:</b> 43013502420000
<b>PHONE NUMBER:</b> 435 646-4825 Ext		<b>9. FIELD and POOL or WILDCAT:</b> MONUMENT BUTTE
<b>COUNTY:</b> DUCHESNE		<b>STATE:</b> UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 3/2/2011  <input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:  <input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:  <input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input checked="" type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <span style="border: 1px solid black; padding: 2px;">APD Change</span>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  

The proposed downhole design for the above mentioned well has been changed. The new proposed Bottom Hole Footages will now be 1135' FSL and 440' FWL, SW/SW Sec. 23 T9S R15E. No changes will be made to the surface. Attached is new plat pages, Well Pad Interference Plat, Drilling Program, and Directional Drill Plan. The remainder of the APD will remain the same.

**Approved by the**  
**Utah Division of**  
**Oil, Gas and Mining**

**Date:** 03/07/2011

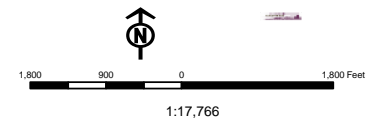
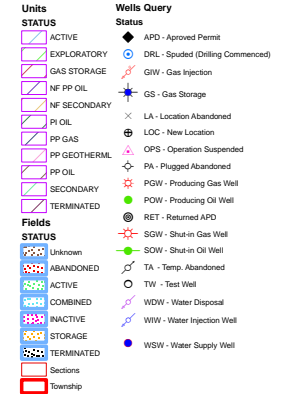
**By:**

<b>NAME (PLEASE PRINT)</b> Mandie Crozier	<b>PHONE NUMBER</b> 435 646-4825	<b>TITLE</b> Regulatory Tech
<b>SIGNATURE</b> N/A	<b>DATE</b> 3/2/2011	



**API Number: 4301350242**  
**Well Name: GREATER MON BUTTE 14-14T-9-15H**  
**Township T0.9 . Range R1.5 . Section 14**  
**Meridian: SLBM**  
**Operator: NEWFIELD PRODUCTION COMPANY**

Map Prepared:  
Map Produced by Diana Mason



1:17,766

VIA ELECTRONIC DELIVERY



March 7, 2011

State of Utah, Division of Oil, Gas and Mining  
ATTN: Diana Mason  
P.O. Box 145801  
Salt Lake City, UT 84114-5801

RE: Sundry Notice  
**Greater Monument Butte 14-14T-9-15H**  
Greater Monument Butte (Green River) Unit

Surface Hole: T9S-R15E Section 14: SESW (UTU-68548)  
510' FSL 2307' FWL

At Target: T9S-R15E Section 23: SWSW (UTU-02458)  
1135' FSL 440' FWL

Duchesne County, Utah

Dear Ms. Mason:

Pursuant to the filing by Newfield Production Company (NPC) of a Sundry Notice affecting the above referenced well dated 3/2/2011, a copy of which is attached, and in accordance with Oil and Gas Conservation Rule R649-3-11, NPC hereby submits this letter as notice of the revised footages of the surface and bottom hole locations referenced above

The surface hole and target locations of this well are both within the boundaries of the Greater Monument Butte Unit (UTU-87538X), of which Newfield certifies that it is the operator. Further, Newfield certifies that all lands within 460 feet of the entire horizontal well bore are within the Greater Monument Butte Unit.

NPC hereby requests our application for permit to drill be granted pursuant to R649-3-11. If you have any questions or require further information, please contact the undersigned at 303-383-4197 or by email at [sgillespie@newfield.com](mailto:sgillespie@newfield.com). Your consideration in this matter is greatly appreciated.

Sincerely,  
Newfield Production Company

A handwritten signature in blue ink, appearing to read "Shane Gillespie".

Shane Gillespie  
Land Associate

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

**1. TYPE OF WELL**  
Oil Well

**2. NAME OF OPERATOR:**  
NEWFIELD PRODUCTION COMPANY

**3. ADDRESS OF OPERATOR:**  
RT 3 Box 3630, Myton, UT, 84052

435 646-4825 Ext

**PHONE NUMBER:**

**4. LOCATION OF WELL**  
**FOOTAGES AT SURFACE:**

0510 FSL 2307 FWL

**QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:**

Qtr/Qtr: SE5W Section: 14 Township: 09,0S Range: 15,0E Meridian: S

**5. LEASE DESIGNATION AND SERIAL NUMBER:**  
UTU-68548

**6. IF INDIAN, ALLOTTEE OR TRIBE NAME:**

**7. UNIT or CA AGREEMENT NAME:**  
GMBU (GRRV)

**8. WELL NAME and NUMBER:**  
GREATER MON BUTTE 14-14T-9-15H

**9. API NUMBER:**  
43013502420000

**9. FIELD and POOL or WILDCAT:**  
MONUMENT BUTTE

**COUNTY:**  
DUCHESE

**STATE:**  
UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

**TYPE OF SUBMISSION****TYPE OF ACTION**

☐ NOTICE OF INTENT  
Approximate date work will start:  
3/2/2011

☐ SUBSEQUENT REPORT  
Date of Work Completion:

☐ SPUD REPORT  
Date of Spud:

☐ DRILLING REPORT  
Report Date:

- ☐ ACIDIZE  
☐ CHANGE TO PREVIOUS PLANS  
☐ CHANGE WELL STATUS  
☐ DEEPEN  
☐ OPERATOR CHANGE  
☐ PRODUCTION START OR RESUME  
☐ REPERFORATE CURRENT FORMATION  
☐ TUBING REPAIR  
☐ WATER SHUTOFF  
☐ WILDCAT WELL DETERMINATION

- ☒ ALTER CASING  
☐ CHANGE TUBING  
☐ COMMINGLE PRODUCING FORMATIONS  
☐ FRACTURE TREAT  
☐ PLUG AND ABANDON  
☐ RECLAMATION OF WELL SITE  
☐ SIDETRACK TO REPAIR WELL  
☐ VENT OR FLARE  
☐ SI TA STATUS EXTENSION  
☒ OTHER

- ☐ CASING REPAIR  
☐ CHANGE WELL NAME  
☐ CONVERT WELL TYPE  
☐ NEW CONSTRUCTION  
☐ PLUG BACK  
☐ RECOMPLETE DIFFERENT FORMATION  
☐ TEMPORARY ABANDON  
☐ WATER DISPOSAL  
☐ APD EXTENSION

**OTHER:** APD Change

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The proposed downhole design for the above mentioned well has been changed. The new proposed Bottom Hole Footages will now be 1135' FSL and 440' FWL, SW/SW Sec. 23 T9S R15E. No changes will be made to the surface. Attached is new plat pages, Well Pad Interference Plat, Drilling Program, and Directional Drill Plan. The remainder of the APD will remain the same.

**NAME (PLEASE PRINT)**  
Mandie Crozier

**PHONE NUMBER**  
435 646-4825

**TITLE**  
Regulatory Tech

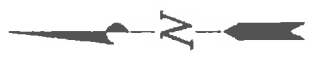
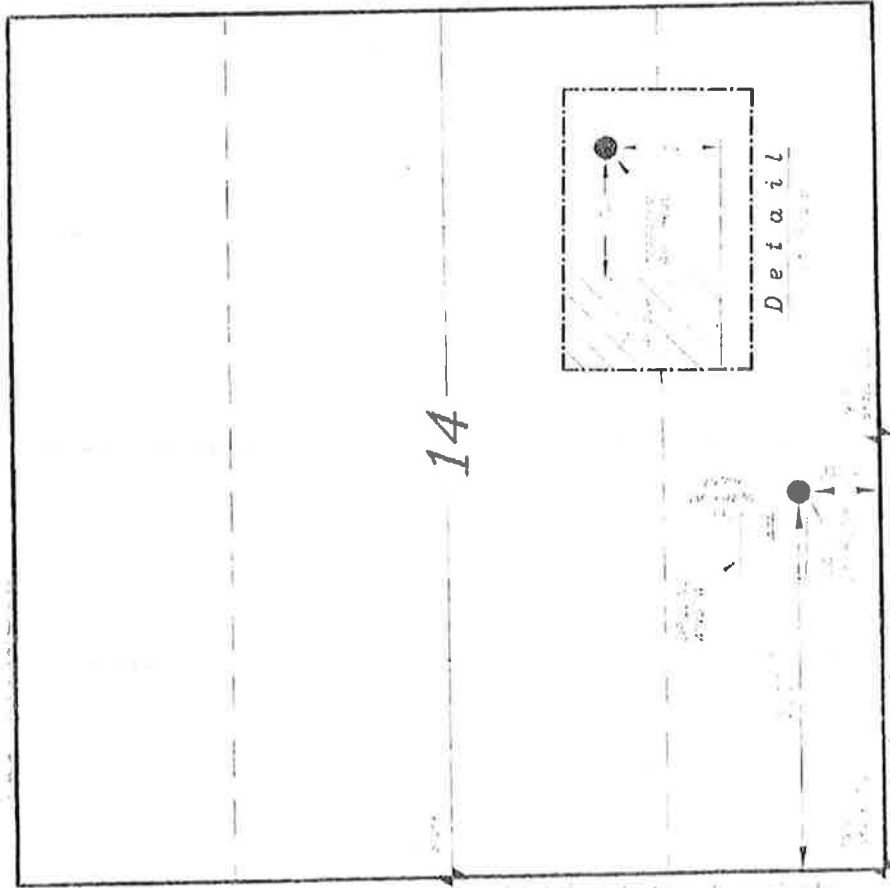
**SIGNATURE**  
N/A

**DATE**  
3/2/2011

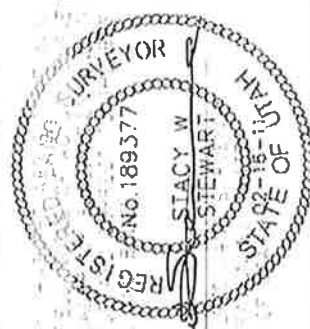


T9S, R15E, S.L.B.&M.

NEWFIELD EXPLORATION COMPANY



WELL LOCATION:  
14-14T-9-15H



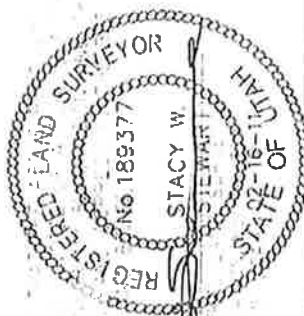
TRI STATE LAND SURVEYING & CONSULTING

14-14T-9-15H  
(Surface Location) NAD 83

NEWFIELD EXPLORATION COMPANY



NOTES:  
1. DISTANCES ARE MEASURED IN FEET.  
2. ALL DISTANCES ARE MEASURED TO THE CENTER OF THE HOLE.  
3. ALL DISTANCES ARE MEASURED TO THE CENTER OF THE HOLE.

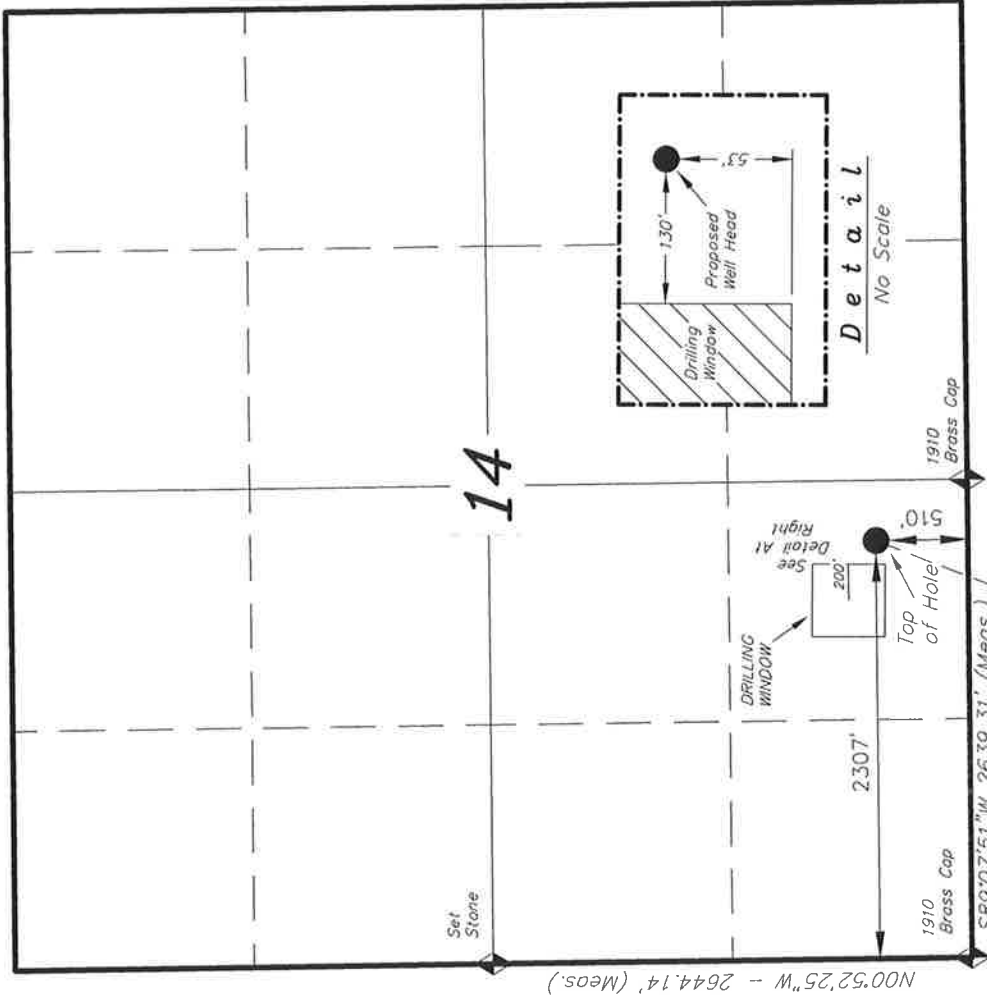


TRI STATE LAND SURVEYING & CONSULTING

# T9S, R15E, S.L.B.&M.

# NEWFIELD EXPLORATION COMPANY

S89°57'W - 80.20 (G.L.O.)



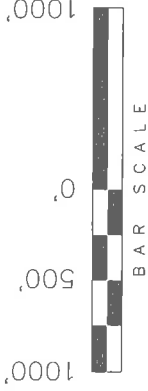
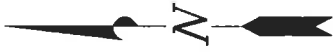
N0°01'W (G.L.O.)  
N00°52'25"W - 2644.14' (Meas.)

S89°59'W - 80.14 (G.L.O.)

S89°07'51"W 2639.31' (Meas.)

(To Bottom Hole)

14-14T-9-15H  
(Surface Location) NAD 83  
LATITUDE = 40° 01' 30.18"  
LONGITUDE = 110° 12' 02.13"



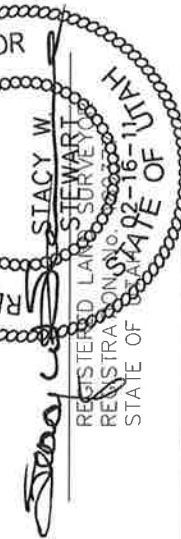
## WELL LOCATION: 14-14T-9-15H

ELEV. UNGRADED GROUND = 6271.0'

◆ = SECTION CORNERS LOCATED

BASIS OF ELEV; Elevations are based on an N.G.S. OPUS Correction. LOCATION: LAT. 40°04'09.56" LONG. 110°00'43.28" (TRI-STATE Aluminum Cap) Elev. 5281.57'

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE IN BEING 189377

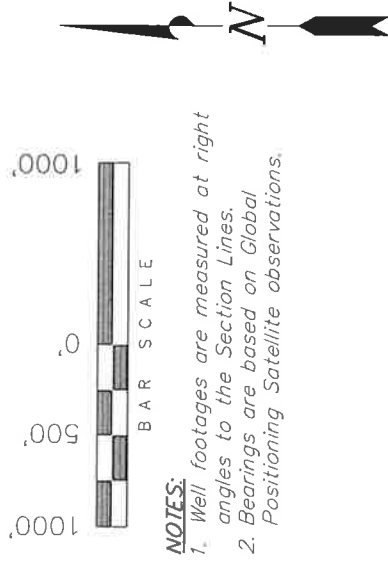


TRI STATE LAND SURVEYING & CONSULTING  
180 NORTH VERNAL AVE. - VERNAL, UTAH 84078  
(435) 781-2501

DATE SURVEYED: 11-06-09	SURVEYED BY: C.M.
DATE DRAWN: 11-14-09	DRAWN BY: F.T.M.
REVISED: 02-25-11 - M.W.	SCALE: 1" = 1000'



TARGET BOTTOM HOLE, 14-14T-9-15H,  
LOCATED AS SHOWN IN THE SW 1/4 SW  
1/4 OF SECTION 23, T9S, R15E, S.L.B.&M.  
DUCHESE COUNTY, UTAH.



STACY W. STEWART  
REGISTERED LAND SURVEYOR  
REGISTRATION NO. 92-16-11  
STATE OF UTAH

DATE SURVEYED: 11-06-09	SURVEYED BY: C.M.
DATE DRAWN: 02-16-11	DRAWN BY: M.W.
REVISED: 02-25-11	SCALE: 1" = 1000'

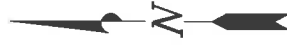
 = SECTION CORNERS LOCATED  
BASIS OF ELEV.; Elevations are base on  
LOCATION: on N.G.S. OPUS Correction.  
LAT. 40°04'09.56" LONG. 110°00'43.28"  
(Tristate Aluminum Cap) Elev. 5281.57'

# NEWFIELD EXPLORATION COMPANY

## WELL PAD INTERFERENCE PLAT

### 14-14T-9-15H (Proposed Well)

Pad Location: SESW Section 14, T9S, R15E, S.L.B.&M.



Future Pit

Edge of Existing Pad

14-14T-9-15H (PROPOSED)

14-14-9-15 (EXISTING)

Existing Stockpile

Existing Access

Edge of Proposed Pad

#### TOP HOLE FOOTAGES

14-14T-9-15H (PROPOSED)  
510' FSL & 2307' FWL

#### BOTTOM HOLE FOOTAGES

14-14T-9-15H (PROPOSED)  
1135' FSL & 440' FWL

520' 59" 15" W - 5024.10'  
(To Bottom Hole)

**Note:**  
Bearings are based on  
GPS Observations.

#### RELATIVE COORDINATES From top hole to bottom hole

WELL	NORTH	EAST
14-14T-9-15H	-4691'	-1799'

#### LATITUDE & LONGITUDE Surface position of Wells (NAD 83)

WELL	LATITUDE	LONGITUDE
14-14T-9-15H	40° 01' 30.18"	110° 12' 02.13"

**Tri State**  
Land Surveying, Inc.  
180 NORTH VERNAL AVE. VERNAL, UTAH 84078  
(435) 781-2501

SURVEYED BY: C.M.	DATE SURVEYED: 11-06-09
DRAWN BY: F.T.M.	DATE DRAWN: 11-20-09
SCALE: 1" = 60'	REVISD: M.W. - 02-25-11

**NEWFIELD PRODUCTION COMPANY  
GREATER MONUMENT BUTTE 14-14T-9-15H  
SHL: SW/SE SECTION 14, T9S, R15E  
BHL: NE/NE SECTION 23, T9S, R15E  
DUCHESNE COUNTY, UTAH**

**ONSHORE ORDER NO. 1**

**DRILLING PROGRAM**

This well is designed as a horizontal in the Basal Carbonate formation, at the base of the Green River formation. The well will be drilled vertically to a kick off point of 5,514'. Directional tools will then be used to build to 92.18° inclination and the well will be landed in the Basal Carbonate formation. The lateral will be drilled to the proposed bottomhole location, and a tapered string of 5-1/2" x 4-1/2" production casing will be run to TD. An open hole packer system and sliding sleeves will be used to isolate separate frac stages in the lateral. The casing will be cemented from the top of the curve to surface with a port collar.

**1. GEOLOGIC SURFACE FORMATION:**

Uinta formation

**2. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:**

Green River	1,555'
Target (Basal Carbonate)	5,819'
TD	5,819' TVD / 10,814' MD

**3. ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERALS:**

Green River Formation (Oil)      4,000' – 5,819' TVD

Fresh water may be encountered in the Uinta Formation, but would not be expected below about 300'. All water shows and water bearing geologic units shall be reported to the geologic and engineering staff of the Vernal Office prior to running the next string of casing or before plugging orders are requested. All water shows must be reported within one (1) business day after being encountered.

All usable (<10,000 PPM TDS) water and prospectively valuable minerals (as described by BLM at onsite) encountered during drilling will be recorded by depth and adequately protected. This information shall be reported to the Vernal Office.

Detected water flows shall be sampled, analyzed, and reported to the geologic & engineering staff of the Vernal Office. The office may request additional water samples for further analysis. Usage of the State of Utah form *Report of Water Encountered* is acceptable, but not required.

The following information is requested for water shows and samples where applicable:

Location & Sampled Interval  
Flow Rate

Date Sampled  
Temperature

Hardness  
 Water Classification (State of Utah)  
 Dissolved Iron (Fe) (ug/l)  
 Dissolved Magnesium (Mg) (mg/l)  
 Dissolved Bicarbonate (NaHCO<sub>3</sub>) (mg/l)  
 Dissolved Sulfate (SO<sub>4</sub>) (mg/l)

pH  
 Dissolved Calcium (Ca) (mg/l)  
 Dissolved Sodium (Na) (mg/l)  
 Dissolved Carbonate (CO<sub>3</sub>) (mg/l)  
 Dissolved Chloride (Cl) (mg/l)  
 Dissolved Total Solids (TDS) (mg/l)

#### 4. PROPOSED CASING PROGRAM

##### a. Casing Design

Description	Interval		Weight (ppf)	Grade	Couple	Pore Press @ Shoe	MW @ Shoe	Frac Grad @ Shoe	Design Factors		
	Top	Bottom							Burst	Col	Tens
Surface 8-5/8"	0'	300'	24.0	J-55	STC	8.33	8.33	12.0	17.07	13.71	33.89
Production 5-1/2"	0'	6,282'	17.0	N-80	LTC	--	--	--	3.99	3.16	2.22
Production 4-1/2"	6,282'	10,814'	11.6	N-80	LTC	8.3	8.5	--	4.01	3.19	2.17

Assumptions:

- 1) Surface casing MASP = (frac gradient + 1.0 ppg) – gas gradient
- 2) Production casing MASP (production mode) = reservoir pressure – gas gradient
- 3) All collapse calculations assume fully evacuated casing
- 4) Surface tension calculations assume air weight of casing
- 5) Production tension calculations assume air weight in vertical portion of hole, plus 50,000 lbs overpull

All casing shall be new.

All casing strings shall have a minimum of 1 (one) centralizer on each of the bottom three (3) joints.

The well will be drilled in 7-7/8" hole size in the vertical and curve sections. Once the well is landed in the Basal Carbonate formation the hole size will be changed to 6-1/8". Due to geological requirements, a special density LWD (logging while drilling) tool will be used. This tool is only available in 4-3/4" tool size and requires the smaller hole size. The production casing will be 5-1/2" in the vertical and curve sections, and will be 4-1/2" in the lateral portion of the well only. Separate frac stages in the lateral portion of the well will be isolated with open hole packers, and accessed with ball actuated sliding sleeves. A port cementing collar will be placed near kick-off point, and cement will be circulated to surface. The cement job will be isolated from the lateral with open hole packers.

##### b. Cement Design

Job	Hole Size	Fill	Slurry Description	ft <sup>3</sup>	OH Excess	Weight (ppg)	Yield (ft <sup>3</sup> /sk)
				Sacks			
Surface	12-1/4"	300'	Class G w/ 2% CaCl <sub>2</sub> , 0.25 lbs/sk Cello Flake	142	15%	15.8	1.17
				122			
Production Lead	7-7/8"	4,000'	Premium Lite II w/ 3% KCl, 10% bentonite	797	15%	11.0	3.50
				244			
Production Tail	7-7/8"	1,514'	50/50 Poz/Class G w/ 3% KCl, 2% bentonite	302	15%	14.3	1.24
				243			

Actual cement volumes will be calculated from open hole logs, plus 15% excess.

Production casing cement will be pumped through a port cementing collar located at the top of

the curve. The lateral will be left uncemented. The lateral will be isolated with open hole packers.

Waiting On Cement: A minimum of four (4) hours shall elapse prior to attempting any pressure testing of the BOP equipment which would subject the surface casing cement to pressure, and a minimum of six (6) hours shall elapse before drilling out of the wiper plug, cement, or shoe is begun. WOC time shall be recorded in the Driller's Log. Compressive Strength shall be a minimum of 500 psi prior to drilling out.

The Vernal BLM Office shall be notified, with sufficient lead time, in order to have a BLM representative on location while running all casing strings and cementing.

The 8-5/8" surface casing shall in all cases be cemented back to surface. In the event that during the primary surface cementing operation the cement does not circulate to surface, or if the cement level should fall back more than 8 feet from surface, then a remedial surface cementing operation shall be performed to insure adequate isolation and stabilization of the surface casing.

As a minimum, usable water zones shall be isolated and/or protected by having a cement top for the production casing at least 200 feet above the base of the usable water. If gilsonite is encountered while drilling, it shall be isolated and/or protected via the cementing program.

All casing strings below the conductor shall be pressure tested to 0.22 psi per foot of casing string length or to 1500 psi, whichever is greater, but not to exceed 70% of the minimum internal yield. If pressure declines more than 10% in 30 minutes, corrective action shall be taken.

A Form 3160-5, "Sundry Notices and Reports on Wells" shall be filed with the Vernal Office Manager within 30 days after the work is completed. This report must include the following information:

Setting of each string of casing showing the size, grade, weight of casing set, depth, amounts and type of cement used, whether cement circulated or the top of the cement behind the casing, depth of the cementing tools used, casing test method and results, and the date of the work done. Spud date will be shown on the first reports submitted.

Please refer to the Monument Butte Field Standard Operation Procedure (SOP).

5. **MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:**

The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc for a 2M system.

A 2000 psi WP hydraulic BOP stack consisting of two ram preventers (double or two singles) and a rotating head per **Exhibit C**. This system will be in accordance to the specifications listed in the Standard Operating Procedures for the Greater Monument Butte Green River Development Program.

Function test of the BOP equipment shall be made daily. All required BOP tests and/or drills shall be recorded in the Driller's report.

Chart recorders will be used for all pressure tests. Test charts, with individual test results identified, shall be maintained on location while drilling and shall be made available to BLM representatives upon request.

If an air compressor is on location and is being utilized to provide air for the drilling medium while drilling, the special drilling requirements in Onshore Oil and Gas Order No. 2 regarding air or gas shall be adhered to. If a mist system is being utilized, the requirement for a deduster shall be waived.

**6. TYPE AND CHARACTERISTICS OF THE PROPOSED CIRCULATION MUDS:**

From surface to 300', an air or fresh water system will be used. From 300' to TD, a fresh water or brine water system will be utilized. Anticipated maximum mud weight is 9.0 lbs/gal. If necessary to control formation fluids or pressure, the system will be weighted with the addition of bentonite gel, and if pressure conditions warrant, with barite.

No chromate additives will be used in the mud system on Federal and/or Indian lands without prior BLM approval to ensure adequate protection of fresh aquifers.

No chemicals subject to reporting under SARA Title III in an amount equal to or greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completing of this well.

Hazardous substances specifically listed by the EPA as a hazardous waste or demonstrating a characteristic of a hazardous waste will not be used in drilling, testing, or completion operations.

**7. AUXILIARY SAFETY EQUIPMENT TO BE USED:**

**8. TESTING, LOGGING AND CORING PROGRAMS:**

**a. Logging Program:**

(the log types run may change at the discretion of the geologist)

FDC/CNL/GR/DIL: Top of the curve – 4,000'

CBL: A cement bond log will be run from KOP to the cement top of the production casing.  
A field copy will be submitted to the Vernal BLM Office.

**b. Cores:** As deemed necessary.

**c. Drill Stem Tests:** No DSTs are planned in the Green River.

Please refer to the Monument Butte Field Standard Operation Procedure (SOP).

**9. ANTICIPATED ABNORMAL PRESSURE OR TEMPERATURE:**

There is no abnormal pressure or temperature expected. Maximum anticipated bottomhole pressure will be approximately equal total true vertical depth in feet multiplied by a 0.433 psi/foot gradient.

**10. ANTICIPATED STARTING DATE AND DURATION OF THE OPERATIONS:**

**a. Drilling Activity**



Anticipated Commencement Date:	Upon approval of the site specific APD.
Drilling Days:	Approximately 18 days.
Completion Days:	Approximately 12 - 20 days.

#### **b. Notification of Operations**

The Vernal BLM office will be notified at least 24 hours **prior** to the commencement of spudding the well (to be followed with a Sundry Notice, Form 3160-5), of initiating pressure tests of the blowout preventer and related equipment, and running casing and cementing of all casing strings. Notification will be made during regular work hours (7:45 a.m.-4:30 p.m., Monday - Friday except holidays).

**Immediate Report:** Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported in accordance with the appropriate regulations, Onshore Orders, or BLM policy.

No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in suspended status without prior approval from the AO. If operations are to be suspended, prior approval of the AO will be obtained and notification given to the BLM before resumption of operations.

Daily drilling and completion reports shall be submitted to the Vernal BLM Office on a weekly basis.

Whether the well is completed as a dry hole or a producer, the "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. One copy of all logs, core descriptions, core analyses, well test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations will be filed with Form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the Authorized Officer (AO).

A completion rig will be used for completion operations after the wells are stimulated to run the production tubing.. All conditions of this approved plan will be applicable during all operations conducted with the completion rig.

Operator shall report production data to the MMS pursuant to 30 CFR 216.5 using form MMS/3160. In accordance with Onshore Oil and Gas Order No. 1, a well will be reported on form 3160-6, "Monthly Report of Operations," starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report will be filed with the Vernal BLM Office.

The date on which production is commenced or resumed will be construed for oil wells as the date on which liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated, or the date on which liquid hydrocarbons are first produced into a permanent storage facility, whichever occurs first; and for gas wells, as the date on which associated liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated, or the date on which gas is measured through permanent metering facilities, whichever occurs first.

Should the well be successfully completed for production, the AO will be notified when the well is placed in a producing status. Such notification will be sent by written communication not later than 5 days following the date when the well is placed on production.

Pursuant to Onshore Order No. 7, with the approval of the AO, produced water may be temporarily disposed of into unlined pits for a period of up to 90 days. During this period, an application for approval of the permanent disposal method must be submitted to the AO.

Pursuant to NTL-4A, lessees or operators are authorized to vent/flare gas during the initial well evaluation tests, not to exceed 30 days or the production of 50 MMCF of gas, whichever occurs first. An application must be filed with the AO and approval received for any venting/flaring of gas beyond the initial 30 days or authorized test period.

A schematic facilities diagram, as required by 43 CFR 3162.7-5(b.9.d), shall be submitted to the Vernal BLM Office within 60 days of installation or first production, whichever occurs first. All site security regulations, as specified in Onshore Oil & Gas Order No. 3, shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with 43 CFR 3162.7-5(b.4).

Well abandonment operations shall not be commenced without the prior approval of the AO. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the AO. A "Subsequent Report of Abandonment", Form 3160-5, will be filed with the Authorized Officer within 30 days following completion of the well for abandonment. This report will indicate placement of the plugs and current status of the surface restoration. Final Abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the AO, or the appropriate surface managing agency.

Pursuant to Onshore Oil and Gas Order No. 1, lessees and operators have the responsibility to see that their exploration, development, production, and construction operations are conducted in a manner which conforms with applicable Federal laws and regulations and with the State and local laws, to the extent to which they are applicable, to operations on Federal or Indian lands.

Please refer to the Monument Butte Field Standard Operation Procedure (SOP).

# NEWFIELD

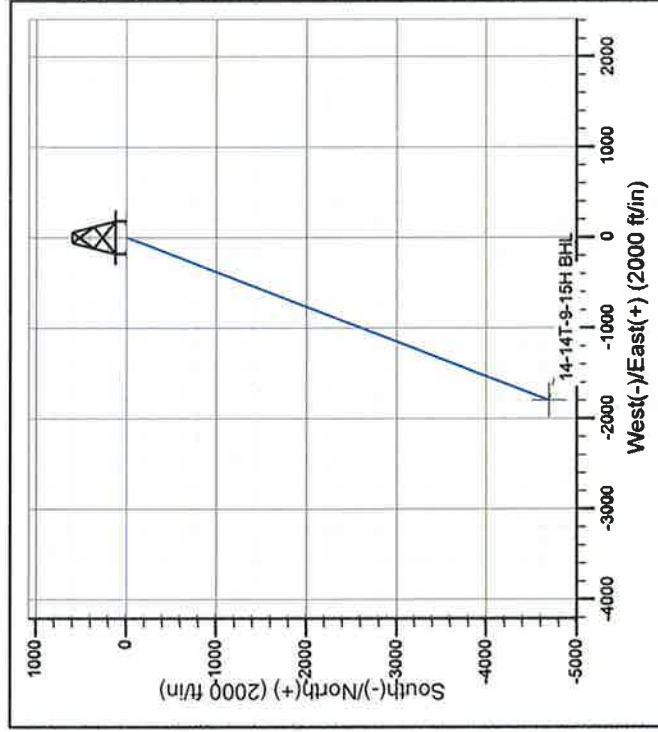
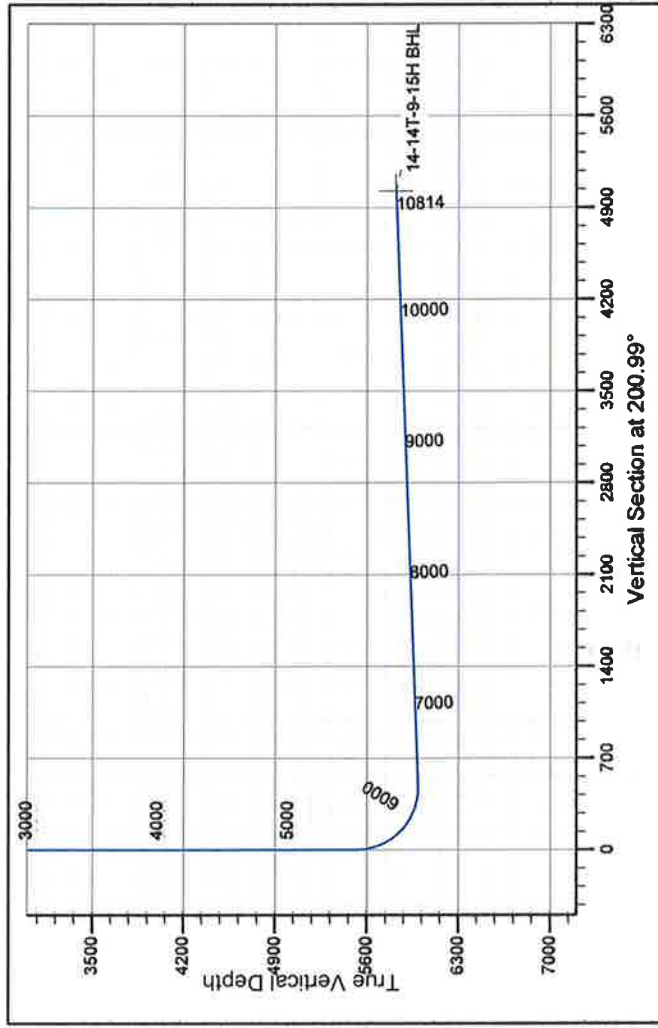


## ROCKY MOUNTAINS

### Newfield Production Company

**Project: Monument Butte**  
**Site: 14-14T-9-15H**  
**Well: 14-14T-9-15H**  
**Wellbore: Wellbore #1**  
**Design: Design #1**

**T M** Azimuths to True North  
 Magnetic North: 11.54°  
 Magnetic Field  
 Strength: 52408.2snT  
 Dip Angle: 65.80°  
 Date: 12/31/2009  
 Model: IGRF200510



#### SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	5514.0	0.00	0.00	5514.0	0.0	0.0	0.00	0.00	0.0	
3	6282.2	92.18	200.99	5991.1	-462.7	-177.5	12.00	200.99	495.6	
410813.9	92.18	200.99	5819.0	-4690.8	-1799.5	0.00	0.00	5024.1	14-14T-9-15H BHL	

Created by: Hans Wychgram

Date: 2-21-11

PROJECT DETAILS: Monument Butte

Geodetic System: US State Plane 1983

Datum: North American Datum 1983

Ellipsoid: GRS 1980

Zone: Utah Central Zone

System Datum: Mean Sea Level

# **Newfield Production Company**

**Monument Butte**

**14-14T-9-15H**

**14-14T-9-15H**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**02 March, 2011**

# Newfield Exploration

## Planning Report

**Database:** EDM 2003.21 Single User Db  
**Company:** Newfield Production Company  
**Project:** Monument Butte  
**Site:** 14-14T-9-15H  
**Well:** 14-14T-9-15H  
**Wellbore:** Wellbore #1  
**Design:** Design #1

**Local Co-ordinate Reference:** Well 14-14T-9-15H  
**TVD Reference:** RKB @ 6283.0ft (Capstar #329)  
**MD Reference:** RKB @ 6283.0ft (Capstar #329)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

<b>Project</b>	Monument Butte		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Utah Central Zone		

<b>Site</b>	14-14T-9-15H		
<b>Site Position:</b>		<b>Northing:</b>	2,188,618.12 m
<b>From:</b>	Lat/Long	<b>Easting:</b>	610,906.42 m
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	in
		<b>Latitude:</b>	40° 1' 30.180 N
		<b>Longitude:</b>	110° 12' 2.130 W
		<b>Grid Convergence:</b>	0.83 °

<b>Well</b>	14-14T-9-15H		
<b>Well Position</b>	<b>+N/-S</b>	0.0 ft	<b>Northing:</b>
	<b>+E/-W</b>	0.0 ft	<b>Easting:</b>
<b>Position Uncertainty</b>	0.0 ft	<b>Wellhead Elevation:</b>	ft
		<b>Latitude:</b>	40° 1' 30.180 N
		<b>Longitude:</b>	110° 12' 2.130 W
		<b>Ground Level:</b>	6,271.0 ft

**Wellbore** Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	11.54	65.80	52,409

**Design** Design #1

**Audit Notes:**

**Version:** **Phase:** PROTOTYPE **Tie On Depth:** 0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	200.99

### Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,514.0	0.00	0.00	5,514.0	0.0	0.0	0.00	0.00	0.00	0.00	
6,282.2	92.18	200.99	5,991.1	-462.7	-177.5	12.00	12.00	0.00	200.99	
10,813.9	92.18	200.99	5,819.0	-4,690.8	-1,799.5	0.00	0.00	0.00	0.00	14-14T-9-15H BHL

# Newfield Exploration

## Planning Report

**Database:** EDM 2003.21 Single User Db  
**Company:** Newfield Production Company  
**Project:** Monument Butte  
**Site:** 14-14T-9-15H  
**Well:** 14-14T-9-15H  
**Wellbore:** Wellbore #1  
**Design:** Design #1

**Local Co-ordinate Reference:** Well 14-14T-9-15H  
**TVD Reference:** RKB @ 6283.0ft (Capstar #329)  
**MD Reference:** RKB @ 6283.0ft (Capstar #329)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00



# Newfield Exploration

## Planning Report

**Database:** EDM 2003.21 Single User Db  
**Company:** Newfield Production Company  
**Project:** Monument Butte  
**Site:** 14-14T-9-15H  
**Well:** 14-14T-9-15H  
**Wellbore:** Wellbore #1  
**Design:** Design #1

**Local Co-ordinate Reference:** Well 14-14T-9-15H  
**TVD Reference:** RKB @ 6283.0ft (Capstar #329)  
**MD Reference:** RKB @ 6283.0ft (Capstar #329)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,514.0	0.00	0.00	5,514.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	10.32	200.99	5,599.5	-7.2	-2.8	7.7	12.00	12.00	0.00
5,700.0	22.32	200.99	5,695.3	-33.4	-12.8	35.8	12.00	12.00	0.00
5,800.0	34.32	200.99	5,783.2	-77.6	-29.8	83.1	12.00	12.00	0.00
5,900.0	46.32	200.99	5,859.3	-137.9	-52.9	147.7	12.00	12.00	0.00
6,000.0	58.32	200.99	5,920.3	-211.7	-81.2	226.7	12.00	12.00	0.00
6,100.0	70.32	200.99	5,963.6	-295.6	-113.4	316.6	12.00	12.00	0.00
6,200.0	82.32	200.99	5,987.2	-386.2	-148.1	413.6	12.00	12.00	0.00
6,282.2	92.18	200.99	5,991.1	-462.7	-177.5	495.6	12.00	12.00	0.00
6,300.0	92.18	200.99	5,990.5	-479.4	-183.9	513.4	0.00	0.00	0.00
6,400.0	92.18	200.99	5,986.7	-572.7	-219.7	613.3	0.00	0.00	0.00
6,500.0	92.18	200.99	5,982.9	-666.0	-255.5	713.3	0.00	0.00	0.00
6,600.0	92.18	200.99	5,979.1	-759.3	-291.3	813.2	0.00	0.00	0.00
6,700.0	92.18	200.99	5,975.3	-852.6	-327.1	913.1	0.00	0.00	0.00
6,800.0	92.18	200.99	5,971.5	-945.9	-362.8	1,013.1	0.00	0.00	0.00
6,900.0	92.18	200.99	5,967.7	-1,039.2	-398.6	1,113.0	0.00	0.00	0.00
7,000.0	92.18	200.99	5,963.9	-1,132.4	-434.4	1,212.9	0.00	0.00	0.00
7,100.0	92.18	200.99	5,960.1	-1,225.7	-470.2	1,312.8	0.00	0.00	0.00
7,200.0	92.18	200.99	5,956.3	-1,319.0	-506.0	1,412.8	0.00	0.00	0.00
7,300.0	92.18	200.99	5,952.5	-1,412.3	-541.8	1,512.7	0.00	0.00	0.00
7,400.0	92.18	200.99	5,948.7	-1,505.6	-577.6	1,612.6	0.00	0.00	0.00
7,500.0	92.18	200.99	5,944.9	-1,598.9	-613.4	1,712.6	0.00	0.00	0.00
7,600.0	92.18	200.99	5,941.1	-1,692.2	-649.2	1,812.5	0.00	0.00	0.00
7,700.0	92.18	200.99	5,937.3	-1,785.5	-685.0	1,912.4	0.00	0.00	0.00
7,800.0	92.18	200.99	5,933.5	-1,878.8	-720.7	2,012.3	0.00	0.00	0.00
7,900.0	92.18	200.99	5,929.7	-1,972.1	-756.5	2,112.3	0.00	0.00	0.00
8,000.0	92.18	200.99	5,925.9	-2,065.4	-792.3	2,212.2	0.00	0.00	0.00
8,100.0	92.18	200.99	5,922.1	-2,158.7	-828.1	2,312.1	0.00	0.00	0.00
8,200.0	92.18	200.99	5,918.3	-2,252.0	-863.9	2,412.0	0.00	0.00	0.00
8,300.0	92.18	200.99	5,914.5	-2,345.3	-899.7	2,512.0	0.00	0.00	0.00
8,400.0	92.18	200.99	5,910.7	-2,438.6	-935.5	2,611.9	0.00	0.00	0.00
8,500.0	92.18	200.99	5,906.9	-2,531.9	-971.3	2,711.8	0.00	0.00	0.00
8,600.0	92.18	200.99	5,903.1	-2,625.2	-1,007.1	2,811.8	0.00	0.00	0.00
8,700.0	92.18	200.99	5,899.3	-2,718.5	-1,042.9	2,911.7	0.00	0.00	0.00
8,800.0	92.18	200.99	5,895.5	-2,811.8	-1,078.7	3,011.6	0.00	0.00	0.00
8,900.0	92.18	200.99	5,891.7	-2,905.1	-1,114.4	3,111.5	0.00	0.00	0.00
9,000.0	92.18	200.99	5,887.9	-2,998.4	-1,150.2	3,211.5	0.00	0.00	0.00
9,100.0	92.18	200.99	5,884.1	-3,091.7	-1,186.0	3,311.4	0.00	0.00	0.00
9,200.0	92.18	200.99	5,880.3	-3,185.0	-1,221.8	3,411.3	0.00	0.00	0.00
9,300.0	92.18	200.99	5,876.5	-3,278.3	-1,257.6	3,511.3	0.00	0.00	0.00
9,400.0	92.18	200.99	5,872.7	-3,371.6	-1,293.4	3,611.2	0.00	0.00	0.00
9,500.0	92.18	200.99	5,868.9	-3,464.9	-1,329.2	3,711.1	0.00	0.00	0.00
9,600.0	92.18	200.99	5,865.1	-3,558.2	-1,365.0	3,811.0	0.00	0.00	0.00
9,700.0	92.18	200.99	5,861.3	-3,651.5	-1,400.8	3,911.0	0.00	0.00	0.00
9,800.0	92.18	200.99	5,857.5	-3,744.8	-1,436.6	4,010.9	0.00	0.00	0.00
9,900.0	92.18	200.99	5,853.7	-3,838.1	-1,472.3	4,110.8	0.00	0.00	0.00
10,000.0	92.18	200.99	5,849.9	-3,931.4	-1,508.1	4,210.8	0.00	0.00	0.00
10,100.0	92.18	200.99	5,846.1	-4,024.7	-1,543.9	4,310.7	0.00	0.00	0.00
10,200.0	92.18	200.99	5,842.3	-4,118.0	-1,579.7	4,410.6	0.00	0.00	0.00
10,300.0	92.18	200.99	5,838.5	-4,211.3	-1,615.5	4,510.5	0.00	0.00	0.00
10,400.0	92.18	200.99	5,834.7	-4,304.6	-1,651.3	4,610.5	0.00	0.00	0.00
10,500.0	92.18	200.99	5,830.9	-4,397.9	-1,687.1	4,710.4	0.00	0.00	0.00

# Newfield Exploration

## Planning Report

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well 14-14T-9-15H
<b>Company:</b>	Newfield Production Company	<b>TVD Reference:</b>	RKB @ 6283.0ft (Capstar #329)
<b>Project:</b>	Monument Butte	<b>MD Reference:</b>	RKB @ 6283.0ft (Capstar #329)
<b>Site:</b>	14-14T-9-15H	<b>North Reference:</b>	True
<b>Well:</b>	14-14T-9-15H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,600.0	92.18	200.99	5,827.1	-4,491.2	-1,722.9	4,810.3	0.00	0.00	0.00
10,700.0	92.18	200.99	5,823.3	-4,584.5	-1,758.7	4,910.2	0.00	0.00	0.00
10,800.0	92.18	200.99	5,819.5	-4,677.8	-1,794.5	5,010.2	0.00	0.00	0.00
10,813.9	92.18	200.99	5,819.0	-4,690.8	-1,799.5	5,024.1	0.00	0.00	0.00
<b>14-14T-9-15H BHL</b>									

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED  
OMB No. 1004-0137  
Expires July 31, 2010

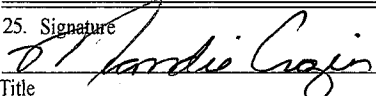
**CONFIDENTIAL**

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. UTU-68548
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name NA
2. Name of Operator Newfield Production Company		7. If Unit or CA Agreement, Name and No. Greater Monument Butte
3a. Address Route #3 Box 3630, Myton UT 84052		8. Lease Name and Well No. Greater Monument Butte 14-14T-9-15H
3b. Phone No. (include area code) (435) 646-3721		9. API Well No. 43-013-50242
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface SE/SW 510' FSL 2307' FWL Sec. 14, T9S R15E (UTU-68548) At proposed prod. zone NE/NE 283' FNL 1150' FEL Sec. 14, T9S R15E (UTU-66184)		10. Field and Pool, or Exploratory Monument Butte
14. Distance in miles and direction from nearest town or post office* Approximately 15.6 miles southwest of Myton, UT		11. Sec., T. R. M. or Blk. and Survey or Area Sec. 14, T9S R15E
15. Distance from proposed* location to nearest property or lease line, ft. Approx. 283' f/lse, NA' f/unit (Also to nearest drig. unit line, if any)	16. No. of acres in lease 711.22	17. Spacing Unit dedicated to this well 320 Acres
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. Approx. 820'	19. Proposed Depth 6,015'	20. BLM/BIA Bond No. on file WYB000493
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6271' GL	22. Approximate date work will start* 2nd Qtr. 2010	23. Estimated duration (10) days from SPUD to rig release

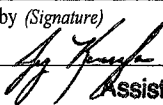
24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, must be attached to this form:

- |  |   |
|--|---|
| 1. Well plat certified by a registered surveyor.   | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan.  | 5. Operator certification   |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM.             |

25. Signature 	Name (Printed/Typed) Mandie Crozier	Date 1/28/10
--	--	-----------------

Title  
Regulatory Specialist

Approved by (Signature) 	Name (Printed/Typed) Jerry Kenczka	Date FEB 14 2011
Title Assistant Field Manager Lands & Mineral Resources	Office VERNAL FIELD OFFICE	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

**CONDITIONS OF APPROVAL ATTACHED**

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

**RECEIVED**

\*(Instructions on page 2)

FEB 28 2011

**UDOGM**

DIV. OF OIL, GAS & MINING

**NOTICE OF APPROVAL**

FEB - 1 2010

**NOS** 12/4/09

**AFMSS#** 10X50132A

BLM VERNAL, UT



UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
VERNAL FIELD OFFICE

170 South 500 East

VERNAL, UT 84078

(435) 781-4400



**CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL**

Company:	Newfield Production Company	Location:	SESW, Sec. 14, T9S, R15E
Well No:	Greater Monument Butte 14-14T-9-15H	Lease No:	UTU-68548
API No:	43-013-50242	Agreement:	Greater Monument Butte Unit

**OFFICE NUMBER: (435) 781-4400**

**OFFICE FAX NUMBER: (435) 781-3420**

**A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR  
FIELD REPRESENTATIVE TO INSURE COMPLIANCE**

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

**NOTIFICATION REQUIREMENTS**

Location Construction (Notify Environmental Scientist)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: <a href="mailto:ut_vn_opreport@blm.gov">ut_vn_opreport@blm.gov</a> .
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

### **SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)**

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 gms of NO<sub>x</sub> per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO<sub>x</sub> per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.
- All permanent (meaning on site for six months or longer) structures will be painted Covert Green to match the surrounding landscape color unless otherwise authorized. This will include all facilities except those required to comply with Occupational Safety and Health Act (OSHA) regulations.
- Prior to construction, an invasive plants/noxious weeds inventory will be completed for all areas where surface disturbance will occur, and a completed Weed Inventory Form will be submitted to the BLM Authorized Officer.

#### **Reclamation**

- Reclamation will be completed in accordance with the Newfield Exploration Company Castle Peak and Eight Mile Flat Reclamation Plan on file with the Vernal Field Office of the BLM.

#### **Interim and Final Reclamation Seed Mixture**

Common name	Latin name	lbs/acre	Recommended seed planting depth
Squirreltail grass	<i>Elymus elymoides</i>	3.0	¼ - ½"
Bluebunch wheatgrass	<i>Pseudoroegneria spicata</i>	3.0	½"
Shadscale saltbush	<i>Atriplex confertifolia</i>	3.0	½"
Four-wing saltbush	<i>Atriplex canescens</i>	3.0	½"
Gardner's saltbush	<i>Atriplex gardneri</i>	2.0	½"
Scarlet globemallow	<i>Sphaeralcea coccinea</i>	1.0	⅛ - ¼"

- All pounds are pure live seed.
- All seed and mulch will be certified weed free.
- Rates are set for drill seeding; double rate if broadcasting.

### **Monitoring and Reporting**

- The operator shall submit a Sundry Notice (Form 3160-5) to the BLM Authorized Officer (AO) that designates the proposed site-specific monitoring and reference sites chosen for the location. A description of the proposed sites shall be included, as well as a map showing the locations of the proposed sites.
- The operator shall submit a Sundry Notice (Form 3160-5) to the BLM Authorized Officer (AO) 3 growing seasons after reclamation efforts have occurred evaluating the status of the reclaimed areas in order to determine whether the BLM standards set forth in the Green River District Reclamation Guidelines have been met (30% or greater basal cover).

**DOWNHOLE PROGRAM  
CONDITIONS OF APPROVAL (COAs)**

**SITE SPECIFIC DOWNHOLE COAs:**

- The production casing shall be cemented to surface.
- If drilling conditions warrant (Loss Circulation), a two stage cement job shall be used to cement the production casing in place.
- Gamma Ray Log shall be run from Total Depth to Surface.

**Variances Granted**

- **Air Drilling**
- Dust suppression equipment. Variance granted for water mist system to substitute for the dust suppression equipment.
- Blooie line discharge 100' from the well bore, variance granted for blooie line discharge to be 80' from the well bore.
- Straight run blooie line. Variance granted for targeted "T's" at bends.
- Automatic igniter. Variance granted for igniter due to water mist.

**All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to.** The following items are emphasized:

**DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS**

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.



- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- **Cement baskets shall not be run on surface casing.**
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- **Please submit an electronic copy of all other logs run on this well in LAS format to UT\_VN\_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.**
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

## OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at [www.ONRR.gov](http://www.ONRR.gov).
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
  - Operator name, address, and telephone number.
  - Well name and number.
  - Well location (1/4, Sec., Twn, Rng, and P.M.).
  - Date well was placed in a producing status (date of first production for which royalty will be paid).
  - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
  - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
  - Unit agreement and/or participating area name and number, if applicable.
  - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid,

and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

CONFIDENTIAL

Spud

BLM - Vernal Field Office - Notification Form

Operator Newfield Exploration Rig Name/# Ross 29 Submitted By  
Cheyenne Bateman Phone Number 435-823-2419  
Well Name/Number Greater Monument Butte 14-14T-9-15H  
Qtr/Qtr SE/SW Section 14 Township 9S Range 15E  
Lease Serial Number UTU-68548  
API Number 43-013-50242

Spud Notice – Spud is the initial spudding of the well, not drilling  
out below a casing string.

Date/Time 3/15/2011 8:00 AM ☒ PM ☐

Casing – Please report time casing run starts, not cementing  
times.

- ☒ Surface Casing
- ☐ Intermediate Casing
- ☐ Production Casing
- ☐ Liner
- ☐ Other

Date/Time 3/15/2011 2:00 AM ☐ PM ☒

BOPE

- ☐ Initial BOPE test at surface casing point
- ☐ BOPE test at intermediate casing point
- ☐ 30 day BOPE test
- ☐ Other

Date/Time \_\_\_\_\_ AM ☐ PM ☐

Remarks \_\_\_\_\_

---

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**CONFIDENTIAL**

FORM APPROVED  
OMB No. 1004-0137  
Expires: July 31, 2010

**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

**SUBMIT IN TRIPLICATE - Other Instructions on page 2**

1. Type of Well  
☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator  
NEWFIELD PRODUCTION COMPANY

3a. Address Route 3 Box 3630  
Myton, UT 84052

3b. Phone (include area code)  
435.646.3721

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

SESW Section 14 T9S R15E

6. If Indian, Allottee or Tribe Name.

7. If Unit or CA/Agreement, Name and/or  
GMBU

8. Well Name and No.  
GMBU 14-14T-9-15H

9. API Well No.  
4301350242

10. Field and Pool, or Exploratory Area  
GREATER MB UNIT

11. County or Parish, State  
DUCHESNE, UT

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION				
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off	
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity	
<input type="checkbox"/> Final Abandonment	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other	
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug & Abandon	<input type="checkbox"/> Temporarily Abandon	Spud Notice	
	<input type="checkbox"/> Convert to Injector	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal		

13. Describe Proposed or Completed Operation: (Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recomplate in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

On 3/15/11 MIRU Ross #29. Spud well @8:00 AM. Drill 310' of 12 1/4" hole with air mist. TIH W/ 7 Jt's 8 5/8" J-55 24# csgn. Set @ 298.12'. On 3/16/11 cement with 160 sks of class "G" w/ 2% CaCL2 + 0.25#/sk Cello- Flake Mixed @ 15.8ppg w/ 1.17ft3/sk yield. Returned 6.5 barrels cement to pit. WOC.

**RECEIVED**

**MAR 21 2011**

**DIV. OF OIL, GAS & MINING**

I hereby certify that the foregoing is true and correct (Printed/ Typed)

Chevenne Bateman

Signature

Title

Date

03/17/2011

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title

Date

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious and fraudulent statements or representations as to any matter within its jurisdiction

(Instructions on page 2)

# NEWFIELD PRODUCTION COMPANY - CASING & CEMENT REPORT

8 5/8" CASING SET AT

311.44

LAST CASING 14" SET AT 6  
 DATUM 13  
 DATUM TO CUT OFF CASING 13  
 DATUM TO BRADENHEAD FLANGE 13  
 TD DRILLER 310 LOGGER \_\_\_\_\_  
 HOLE SIZE 12 1/4"

OPERATOR Newfield Exploration Company  
 WELL GMBU 14-14T-9-15H  
 FIELD/PROSPECT Monument Butte  
 CONTRACTOR & RIG # Ross #29

## LOG OF CASING STRING:

PIECES	OD	ITEM - MAKE - DESCRIPTION		WT / FT	GRD	THREAD	CONDT	LENGTH
1		wellhead					A	1.42
7	8 5/8"	casing (shoe jt 39.90)		24	J-55	STC	A	298.12
1	8 5/8"	giude shoe					A	0.9
CASING INVENTORY BAL.		FEET	JTS	TOTAL LENGTH OF STRING				300.44
TOTAL LENGTH OF STRING		300.44	7	LESS CUT OFF PIECE				2
LESS NON CSG. ITEMS				PLUS DATUM TO T/CUT OFF CSG				13
PLUS FULL JTS. LEFT OUT		0		CASING SET DEPTH				<b>311.44</b>
TOTAL		300.44	7	} COMPARE				
TOTAL CSG. DEL. (W/O THRDS)								
TIMING								
BEGIN RUN CSG.	Spud	8:00 AM	3/16/2011	GOOD CIRC THRU JOB				Yes
CSG. IN HOLE		10:00 AM	3/16/2011	Bbls CMT CIRC TO SURFACE				4
BEGIN CIRC		10:00 AM	3/16/2011	RECIPROCATED PIPI				No
BEGIN PUMP CMT		10:12 AM	3/16/2011	BUMPED PLUG TO				
BEGIN DSPL. CMT		10:24 AM	3/16/2011					356
PLUG DOWN		10:30 AM	3/16/2011					

CEMENT USED		CEMENT COMPANY- BJ services
STAGE	# SX	CEMENT TYPE & ADDITIVES
1	160	Class "G"+2%CaCl Mixed@ 15.8ppg W/1.17 yield returned 4bbbs to pit Middle of first, top of second and third for a total of three.
CENTRALIZER & SCRATCHER PLACEMENT		SHOW MAKE & SPACING
Middle of first, top of second and third for a total of three.		

COMPANY REPRESENTATIVE

## Branden Arnold

DATE **3/17/2011**



STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING  
ENTITY ACTION FORM - FORM 6

OPERATOR: **NEWFIELD PRODUCTION COMPANY**  
ADDRESS: **RT. 3 BOX 3630**  
**MYTON, UT 84052**

OPERATOR ACCT. NO. **N2695**

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
B	99999	17400	4301350150	FEDERAL 16-29-8-16	SESE	29	8S	16E	DUCHESNE	3/11/2011	3/28/11
WELL 1 COMMENTS: GRRV											
B	99999	17400	4301350250	GREATER MON BUTTE M-1-9-16	NESW	1	9S	16E	DUCHESNE	3/12/2011	3/28/11
GRRV BHL = SWNE											
B	99999	17400	4301350242	GREATER MON BUTTE 14-14T-9-15H	SESW	14	9S	15E	DUCHESNE	3/15/2011	3/28/11
GRRV BHL = NENE											
A	99999	17985	4301350452	UTE TRIBAL 8-16-4-1W	SENE	16	4S	1W	DUCHESNE	3/18/2011	3/28/11
GRRV											
A	99999	17986	4301350181	UTE TRIBAL 11-2-4-4	NESW	2	4S	4W	DUCHESNE	3/22/2011	3/28/11
WSTC											
A	99999	17987	4304751307	UTE TRIBAL 5-3-4-1E	SWNW	3	4S	1E	UINTAH	3/22/2011	3/28/11
GRRV											

ACTION CODES (See instructions on back of form)

- A - 1 new entity for new well (single well only)
- B - well to existing entity (group or unit well)
- C - from one existing entity to another existing entity
- D - well from one existing entity to a new entity
- E - other (explain in comments section)

RECEIVED

MAR 23 2011

DIV. OF OIL, GAS & MINING

*[Signature]*  
Signature  
Production Clerk

Jentri Park

03/23/11

NOTE: Use COMMENT section to explain why each Action Code was selected.

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU-68548
<b>1. TYPE OF WELL</b> Oil Well		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>2. NAME OF OPERATOR:</b> NEWFIELD PRODUCTION COMPANY		<b>7. UNIT or CA AGREEMENT NAME:</b> GMBU (GRRV)
<b>3. ADDRESS OF OPERATOR:</b> Rt 3 Box 3630 , Myton, UT, 84052		<b>8. WELL NAME and NUMBER:</b> GREATER MON BUTTE 14-14T-9-15H
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0510 FSL 2307 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: SESW Section: 14 Township: 09.0S Range: 15.0E Meridian: S		<b>9. API NUMBER:</b> 43013502420000
<b>PHONE NUMBER:</b> 435 646-4825 Ext		<b>9. FIELD and POOL or WILDCAT:</b> MONUMENT BUTTE
<b>COUNTY:</b> DUCHESNE		<b>STATE:</b> UTAH

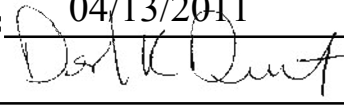
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 4/11/2011	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input checked="" type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <span style="border: 1px solid black; display: inline-block; width: 100px; height: 15px; vertical-align: middle;"></span>
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:			
<input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:			
<input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:			

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  

Newfield requests approval to kick off and side track the existing curve and lateral section of the Greater Monument Butte 14-14T-9-15H. There is 1,760' of 4-1/2" 11.6ppf N-80 LTC casing stuck in the curve and lateral section of the well from 5,410' to 7,170' MD. The original KOP is 5,390' MD, the landing point at approximately 90° is 6,350' MD, the TD is 10,670' MD (5,821' TVD). Built into the 4-1/2" casing string that is stuck in the hole is a Packers Plus system which includes 6 x 4-1/2" OD RockSeal II open hole packers, 6 x 4-1/2" OD Drillable FracPorts, and 1 x RockSeal IIS Anchor/packer. (See detailed tally attached).

**Accepted by the**  
**Utah Division of**  
**Oil, Gas and Mining**

**Date:** 04/13/2011  
**By:** 

<b>NAME (PLEASE PRINT)</b> Mandie Crozier	<b>PHONE NUMBER</b> 435 646-4825	<b>TITLE</b> Regulatory Tech
<b>SIGNATURE</b> N/A	<b>DATE</b> 4/11/2011	

Newfield Exploration - GMB 14-14T-9-15H - Duchesne County, UT				Date	4/6/2011
Item	Description	Length (ft)	Landed @	TMD	10,668.00
			(KB MD)	Accumulated	Proposed
			10648.00		
	Guide Shoe	0.91	10647.09	0.91	
	Float Collar	1.31	10645.78	2.22	
	6' Pup Jt	6.15	10639.63	8.37	
	Float Collar	1.30	10638.33	9.67	
<b>1</b>	<b>Toe Circulating Sub</b>	<b>2.74</b>	<b>10635.59</b>	<b>12.41</b>	<b>10636.00</b>
	15' Pup Jt	15.14	10620.45	27.55	
1	1 Jt. 4-1/2" 11.6# N80 LTC Liner	42.78	10577.67	70.33	<b>42.78</b>
	15' Pup Jt	15.41	10562.26	85.74	
<b>2</b>	<b>Dual Hydraulic FracPort</b>	<b>4.31</b>	<b>10557.95</b>	<b>90.05</b>	<b>10558.00</b>
	15' Pup Jt	15.45	10542.50	105.50	
2	1 Jt. 4-1/2" 11.6# N80 LTC Liner	42.75	10499.75	148.25	<b>42.75</b>
	15' Pup Jt	15.45	10484.30	163.70	
<b>3</b>	<b>RockSeal IIS Anchor / Packer</b>	<b>7.09</b>	<b>10477.21</b>	<b>170.79</b>	<b>10477.00</b>
	15' Pup Jt	15.41	10461.80	186.20	
3	1 Jt. 4-1/2" 11.6# N80 LTC Liner	41.87	10419.93	228.07	<b>41.87</b>
	15' Pup Jt	15.41	10404.52	243.48	
<b>4</b>	<b>RockSeal II Packer 1</b>	<b>5.25</b>	<b>10399.27</b>	<b>248.73</b>	<b>10399.00</b>
	15' Pup Jt	15.38	10383.89	264.11	
4	1 Jt. 4-1/2" 11.6# N80 LTC Liner	42.83	10341.06	306.94	
5	1 Jt. 4-1/2" 11.6# N80 LTC Liner	42.72	10298.34	349.66	<b>3</b>
6	1 Jt. 4-1/2" 11.6# N80 LTC Liner	42.78	10255.56	392.44	<b>128.33</b>
	15' Pup Jt	15.38	10240.18	407.82	
<b>5</b>	<b>1.750" Drillable FracPort</b>	<b>2.63</b>	<b>10237.55</b>	<b>410.45</b>	<b>10245.00</b>
	15' Pup Jt	15.38	10222.17	425.83	
7	1 Jt. 4-1/2" 11.6# N80 LTC Liner	42.82	10179.35	468.65	
8	1 Jt. 4-1/2" 11.6# N80 LTC Liner	42.84	10136.51	511.49	<b>3</b>
9	1 Jt. 4-1/2" 11.6# N80 LTC Liner	42.85	10093.66	554.34	<b>128.51</b>
	15' Pup Jt	15.37	10078.29	569.71	
<b>6</b>	<b>RockSeal II Packer 2</b>	<b>5.22</b>	<b>10073.07</b>	<b>574.93</b>	<b>10090.00</b>
	15' Pup Jt	15.40	10057.67	590.33	
10	1 Jt. 4-1/2" 11.6# N80 LTC Liner	41.86	10015.81	632.19	
11	1 Jt. 4-1/2" 11.6# N80 LTC Liner	42.64	9973.17	674.83	<b>3</b>
12	1 Jt. 4-1/2" 11.6# N80 LTC Liner	39.28	9933.89	714.11	<b>123.78</b>
	15' Pup Jt	15.42	9918.47	729.53	
<b>7</b>	<b>1.875" Drillable FracPort</b>	<b>2.64</b>	<b>9915.83</b>	<b>732.17</b>	<b>9936.00</b>
	15' Pup Jt	15.43	9900.40	747.60	
13	1 Jt. 4-1/2" 11.6# N80 LTC Liner	42.78	9857.62	790.38	<b>2</b>
14	1 Jt. 4-1/2" 11.6# N80 LTC Liner	42.65	9814.97	833.03	<b>85.43</b>
	15' Pup Jt	15.38	9799.59	848.41	
<b>8</b>	<b>RockSeal II Packer 3</b>	<b>5.23</b>	<b>9794.36</b>	<b>853.64</b>	<b>9781.00</b>
	15' Pup Jt	15.45	9778.91	869.09	
15	1 Jt. 4-1/2" 11.6# N80 LTC Liner	42.57	9736.34	911.66	
16	1 Jt. 4-1/2" 11.6# N80 LTC Liner	42.83	9693.51	954.49	<b>3</b>
17	1 Jt. 4-1/2" 11.6# N80 LTC Liner	42.81	9650.70	997.30	<b>128.21</b>
	15' Pup Jt	15.44	9635.26	1012.74	
<b>9</b>	<b>2.000" Drillable FracPort</b>	<b>2.63</b>	<b>9632.63</b>	<b>1015.37</b>	<b>9627.00</b>

	15' Pup Jt	15.16	9617.47	1030.53	
18	1 Jt. 4-1/2" 11.6# N80 LTC Liner	42.80	9574.67	1073.33	
19	1 Jt. 4-1/2" 11.6# N80 LTC Liner	42.63	9532.04	1115.96	<b>3</b>
20	1 Jt. 4-1/2" 11.6# N80 LTC Liner	42.69	9489.35	1158.65	<b>128.12</b>
	15' Pup Jt	15.39	9473.96	1174.04	
<b>10</b>	<b>RockSeal II Packer 4</b>	<b>5.22</b>	<b>9468.74</b>	<b>1179.26</b>	<b>9472.00</b>
	15' Pup Jt	15.44	9453.30	1194.70	
21	1 Jt. 4-1/2" 11.6# N80 LTC Liner	42.68	9410.62	1237.38	
22	1 Jt. 4-1/2" 11.6# N80 LTC Liner	42.75	9367.87	1280.13	<b>3</b>
23	1 Jt. 4-1/2" 11.6# N80 LTC Liner	41.67	9326.20	1321.80	<b>127.10</b>
	15' Pup Jt	15.41	9310.79	1337.21	
<b>11</b>	<b>2.125" Drillable FracPort</b>	<b>2.63</b>	<b>9308.16</b>	<b>1339.84</b>	<b>9317.00</b>
	15' Pup Jt	15.44	9292.72	1355.28	
24	1 Jt. 4-1/2" 11.6# N80 LTC Liner	42.65	9250.07	1397.93	
25	1 Jt. 4-1/2" 11.6# N80 LTC Liner	42.68	9207.39	1440.61	<b>3</b>
26	1 Jt. 4-1/2" 11.6# N80 LTC Liner	42.75	9164.64	1483.36	<b>128.08</b>
	15' Pup Jt	15.39	9149.25	1498.75	
<b>12</b>	<b>RockSeal II Packer 5</b>	<b>5.22</b>	<b>9144.03</b>	<b>1503.97</b>	<b>9163.00</b>
	15' Pup Jt	15.14	9128.89	1519.11	
27	1 Jt. 4-1/2" 11.6# N80 LTC Liner	41.88	9087.01	1560.99	<b>2</b>
28	1 Jt. 4-1/2" 11.6# N80 LTC Liner	41.90	9045.11	1602.89	<b>83.78</b>
	15' Pup Jt	15.46	9029.65	1618.35	
<b>13</b>	<b>2.250" Drillable FracPort</b>	<b>2.64</b>	<b>9027.01</b>	<b>1620.99</b>	<b>9008.00</b>
	15' Pup Jt	14.90	9012.11	1635.89	
29	1 Jt. 4-1/2" 11.6# N80 LTC Liner	42.78	8969.33	1678.67	
30	1 Jt. 4-1/2" 11.6# N80 LTC Liner	42.75	8926.58	1721.42	<b>3</b>
31	1 Jt. 4-1/2" 11.6# N80 LTC Liner	40.85	8885.73	1762.27	<b>126.38</b>
	15' Pup Jt	15.38	8870.35	1777.65	
<b>14</b>	<b>RockSeal II Packer 6</b>	<b>5.23</b>	<b>8865.12</b>	<b>1782.88</b>	<b>8854.00</b>
	15' Pup Jt	14.93	8850.19	1797.81	



# **NEWFIELD EXPLORATION CO.**

**DUCHESNE COUNTY, UT**

**GMB 3-36-8-16H**

**Plan: Design #4**

## **Standard Survey Report**

**11 APRIL, 2011**





Project: DUCHESNE COUNTY, UT  
Site: GMB 14-14T-9-15H  
Well: GMB 14-14T-9-15H  
Wellbore: GMB 14-14T-9-15H  
Design: Design #4  
Latitude: 40° 1' 30.180 N  
Longitude: 110° 12' 2.130 W  
GL: 6271.00  
KB: WELL @ 6283.00ft (CAPSTAR 329)



#### WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape Point
PBHL GMB 14-14T-9-15H	5821.27	-4698.01	-1650.72	40° 0' 43.748 N	110° 12' 23.347 W	

#### WELL DETAILS: GMB 14-14T-9-15H

+N/-S	+E/-W	Northing	Ground Level: 6271.00 Easting	Latitude	Longitude	Slot
0.00	0.00	7180491.27	2004282.13	40° 1' 30.180 N	110° 12' 2.130 W	

#### SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Annotation
5305.00	1.98	176.48	5304.00	-85.99	-9.75	0.00	0.00	84.36	Start 96.20 hold at 5305.00 MD
5401.20	1.98	176.48	5400.15	-89.31	-9.54	0.00	0.00	87.42	Start DLS 11.00 TFO 3.65
5792.33	45.00	180.00	5750.50	-241.56	-9.11	11.00	3.65	230.92	Start 100.00 hold at 5792.33 MD
5892.33	45.00	180.00	5821.21	-312.27	-9.11	0.00	0.00	297.63	Start DLS 11.00 TFO 27.89
6355.01	92.22	201.30	5986.86	-718.27	-99.08	11.00	27.89	710.50	Start 4274.73 hold at 6355.01 MD
10629.74	92.22	201.30	5821.27	-4698.01	-1650.72	0.00	0.00	4979.58	TD at 10629.74

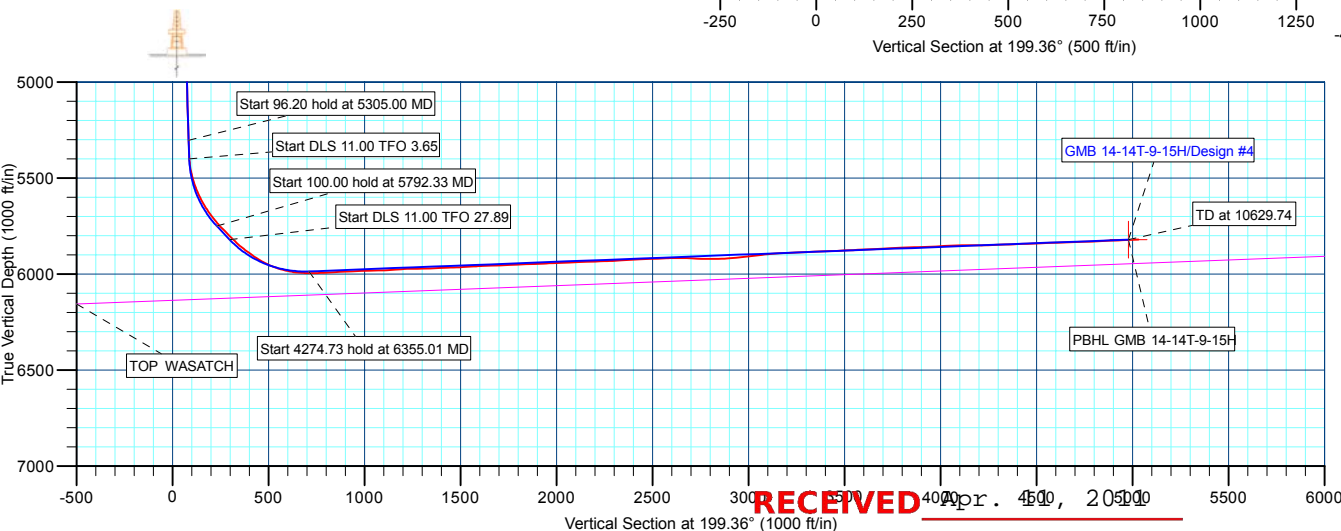
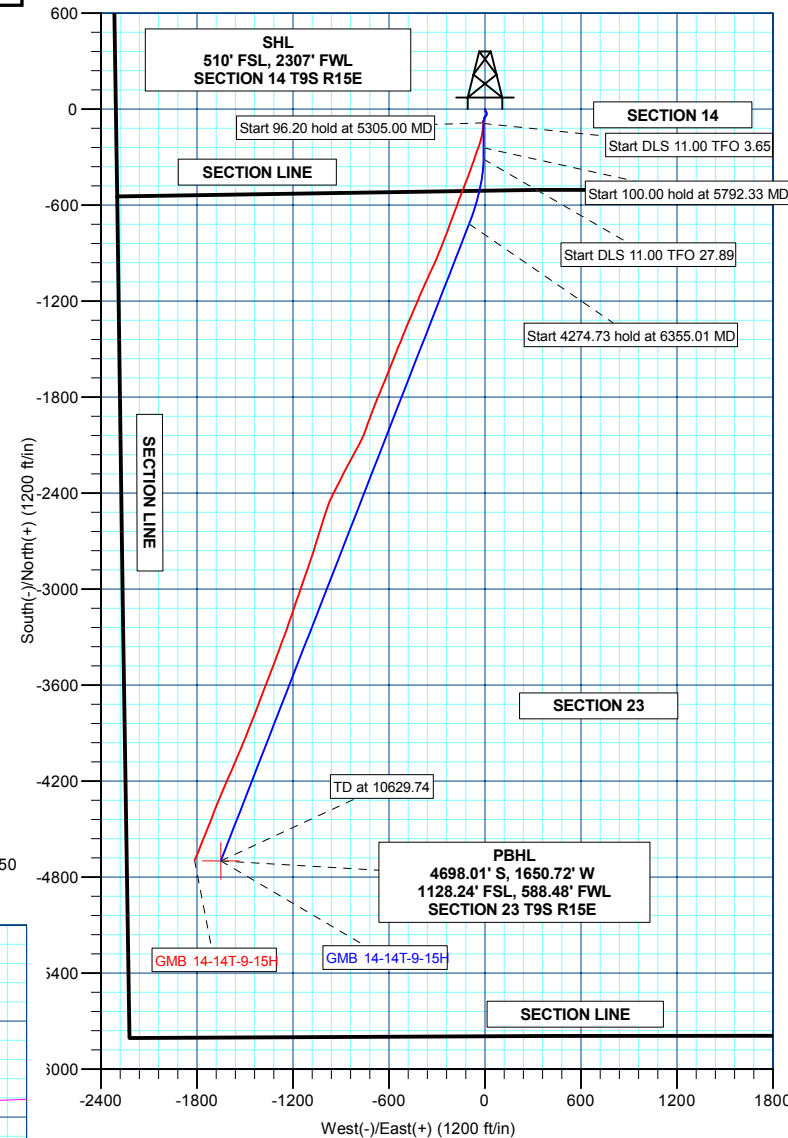
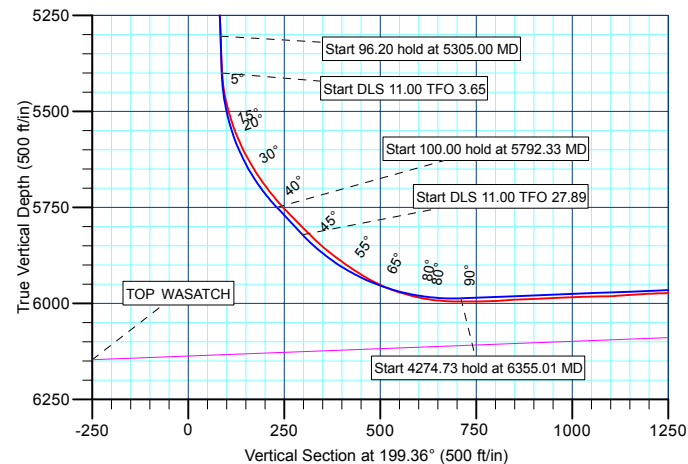
#### FORMATION TOP DETAILS

TVDPathMDPath	Formation
1499.29 1499.54	TOP WASATCH
1514.28 1514.53	BASE USABLE WATER
	TOP GREEN RIVER



Azimuths to True North  
Magnetic North: 11.43°

Magnetic Field  
Strength: 52232.7nT  
Dip Angle: 65.78°  
Date: 3/11/2011  
Model: BGGM2010



Plan: Design #4 (GMB 14-14T-9-15H/GMB 14-14T-9-15H)

Created By: TRACY WILLIAMS Date: 17:06, April 11 2011

**NEWFIELD**



## **NEWFIELD EXPLORATION CO.**

**DUCHESNE COUNTY, UT**

**GMB 14-14T-9-15H**

**GMB 14-14T-9-15H**

**GMB 14-14T-9-15H**

**Plan: Design #4**

## **Standard Planning Report**

**11 April, 2011**



**Weatherford®**





# Weatherford International Ltd.

## Planning Report



<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GMB 14-14T-9-15H
<b>Company:</b>	NEWFIELD EXPLORATION CO.	<b>TVD Reference:</b>	WELL @ 6283.00ft (CAPSTAR 329)
<b>Project:</b>	DUCHESNE COUNTY, UT	<b>MD Reference:</b>	WELL @ 6283.00ft (CAPSTAR 329)
<b>Site:</b>	GMB 14-14T-9-15H	<b>North Reference:</b>	True
<b>Well:</b>	GMB 14-14T-9-15H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	GMB 14-14T-9-15H		
<b>Design:</b>	Design #4		

<b>Project</b>	DUCHESNE COUNTY, UT		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Utah Central Zone		

Site		GMB 14-14T-9-15H			
Site Position:		Northing:	7,180,491.27 ft	Latitude:	40° 1' 30.180 N
From:	Lat/Long	Easting:	2,004,282.13 ft	Longitude:	110° 12' 2.130 W
Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:	0.83 °

Well	GMB 14-14T-9-15H					
Well Position	+N/-S	0.00 ft	Northing:	7,180,491.27 ft	Latitude:	40° 1' 30.180 N
	+E/-W	0.00 ft	Easting:	2,004,282.13 ft	Longitude:	110° 12' 2.130 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,271.00 ft

<b>Wellbore</b>	GMB 14-14T-9-15H				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	BGGM2010	3/11/2011	11.43	65.78	52,233

<b>Design</b>	Design #4			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	5,305.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	199.36

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
5,305.00	1.98	176.48	5,304.00	-85.99	-9.75	0.00	0.00	0.00	0.00	
5,401.20	1.98	176.48	5,400.15	-89.31	-9.54	0.00	0.00	0.00	0.00	
5,792.33	45.00	180.00	5,750.50	-241.56	-9.11	11.00	11.00	0.90	3.65	
5,892.33	45.00	180.00	5,821.21	-312.27	-9.11	0.00	0.00	0.00	0.00	
6,355.01	92.22	201.30	5,986.86	-718.27	-99.08	11.00	10.21	4.60	27.89	
10,629.74	92.22	201.30	5,821.27	-4,698.01	-1,650.72	0.00	0.00	0.00	0.00	PBHL GMB 14-14T



## Weatherford International Ltd.

## Planning Report



Weatherford

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GMB 14-14T-9-15H
<b>Company:</b>	NEWFIELD EXPLORATION CO.	<b>TVD Reference:</b>	WELL @ 6283.00ft (CAPSTAR 329)
<b>Project:</b>	DUCHESNE COUNTY, UT	<b>MD Reference:</b>	WELL @ 6283.00ft (CAPSTAR 329)
<b>Site:</b>	GMB 14-14T-9-15H	<b>North Reference:</b>	True
<b>Well:</b>	GMB 14-14T-9-15H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	GMB 14-14T-9-15H		
<b>Design:</b>	Design #4		

## Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
313.00	1.10	163.91	312.98	-2.89	0.83	2.45	0.35	0.35	0.00
405.00	1.14	171.52	404.96	-4.64	1.21	3.98	0.17	0.04	8.27
496.00	0.97	157.15	495.95	-6.25	1.64	5.35	0.34	-0.19	-15.79
588.00	1.10	163.96	587.93	-7.81	2.19	6.64	0.19	0.14	7.40
679.00	1.19	152.27	678.91	-9.49	2.87	8.00	0.27	0.10	-12.85
771.00	1.27	158.16	770.89	-11.28	3.70	9.42	0.16	0.09	6.40
862.00	1.32	149.32	861.87	-13.12	4.61	10.85	0.23	0.05	-9.71
952.00	1.10	148.27	951.85	-14.74	5.59	12.06	0.25	-0.24	-1.17
1,043.00	0.92	157.06	1,042.84	-16.16	6.33	13.15	0.26	-0.20	9.66
1,134.00	0.92	140.67	1,133.82	-17.40	7.08	14.07	0.29	0.00	-18.01
1,224.00	1.19	148.31	1,223.81	-18.75	8.03	15.03	0.34	0.30	8.49
1,315.00	1.14	150.42	1,314.79	-20.34	8.97	16.22	0.07	-0.05	2.32
1,406.00	1.01	164.49	1,405.77	-21.90	9.63	17.47	0.32	-0.14	15.46
1,496.00	1.32	163.00	1,495.76	-23.66	10.15	18.96	0.35	0.34	-1.66
<b>BASE USABLE WATER</b>									
1,499.54	1.32	163.40	1,499.29	-23.74	10.17	19.02	0.27	-0.08	11.34
<b>TOP GREEN RIVER</b>									
1,514.53	1.31	165.12	1,514.28	-24.07	10.27	19.30	0.27	-0.07	11.45
1,587.00	1.27	173.76	1,586.73	-25.66	10.57	20.71	0.27	-0.05	11.92
1,678.00	1.54	177.93	1,677.71	-27.89	10.72	22.76	0.32	0.30	4.58
1,768.00	1.32	185.27	1,767.68	-30.13	10.67	24.89	0.32	-0.24	8.16
1,859.00	1.05	201.93	1,858.66	-31.95	10.26	26.74	0.48	-0.30	18.31
1,950.00	1.41	195.77	1,949.64	-33.80	9.65	28.69	0.42	0.40	-6.77
2,041.00	1.54	202.37	2,040.61	-36.00	8.88	31.03	0.23	0.14	7.25
2,131.00	0.31	187.64	2,130.59	-37.36	8.38	32.47	1.38	-1.37	-16.37
2,222.00	0.66	204.96	2,221.59	-38.08	8.13	33.24	0.41	0.38	19.03
2,313.00	0.79	205.71	2,312.58	-39.12	7.64	34.38	0.14	0.14	0.82
2,403.00	0.83	210.28	2,402.57	-40.25	7.04	35.64	0.08	0.04	5.08
2,494.00	1.10	202.67	2,493.56	-41.62	6.37	37.16	0.33	0.30	-8.36
2,585.00	1.71	205.40	2,584.53	-43.65	5.45	39.38	0.67	0.67	3.00
2,675.00	0.44	254.35	2,674.52	-44.96	4.54	40.91	1.62	-1.41	54.39
2,766.00	0.97	241.87	2,765.51	-45.42	3.53	41.68	0.60	0.58	-13.71
2,857.00	0.97	233.22	2,856.50	-46.24	2.23	42.89	0.16	0.00	-9.51
2,947.00	1.19	215.82	2,946.48	-47.46	1.07	44.42	0.44	0.24	-19.33
3,038.00	1.67	216.21	3,037.45	-49.29	-0.26	46.59	0.53	0.53	0.43
3,129.00	0.22	265.82	3,128.44	-50.37	-1.22	47.93	1.69	-1.59	54.52
3,219.00	0.00	140.36	3,218.44	-50.39	-1.39	48.00	0.24	-0.24	0.00
3,310.00	0.26	113.51	3,309.44	-50.47	-1.21	48.02	0.29	0.29	0.00
3,401.00	0.44	184.92	3,400.44	-50.90	-1.05	48.37	0.48	0.20	78.47
3,492.00	0.79	201.71	3,491.43	-51.83	-1.31	49.33	0.43	0.38	18.45
3,582.00	0.84	194.78	3,581.42	-53.05	-1.71	50.61	0.12	0.06	-7.70
3,673.00	1.02	202.80	3,672.41	-54.44	-2.19	52.08	0.24	0.20	8.81
3,764.00	1.58	204.21	3,763.39	-56.33	-3.02	54.14	0.62	0.62	1.55
3,854.00	1.45	214.89	3,853.35	-58.39	-4.18	56.48	0.34	-0.14	11.87
3,945.00	0.62	178.55	3,944.34	-59.83	-4.82	58.05	1.12	-0.91	-39.93
4,036.00	0.62	167.65	4,035.33	-60.80	-4.71	58.93	0.13	0.00	-11.98
4,126.00	1.10	171.47	4,125.32	-62.13	-4.47	60.10	0.54	0.53	4.24
4,217.00	1.67	192.83	4,216.30	-64.29	-4.64	62.19	0.83	0.63	23.47
4,308.00	0.48	212.30	4,307.28	-65.91	-5.14	63.88	1.35	-1.31	21.40
4,398.00	1.01	207.95	4,397.27	-66.92	-5.71	65.03	0.59	0.59	-4.83
4,489.00	1.41	189.27	4,488.25	-68.74	-6.27	66.93	0.61	0.44	-20.53
4,580.00	1.89	187.91	4,579.21	-71.33	-6.65	69.50	0.53	0.53	-1.49
4,670.00	1.19	231.90	4,669.18	-73.38	-7.59	71.74	1.47	-0.78	48.88



# Weatherford International Ltd.

## Planning Report



<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GMB 14-14T-9-15H
<b>Company:</b>	NEWFIELD EXPLORATION CO.	<b>TVD Reference:</b>	WELL @ 6283.00ft (CAPSTAR 329)
<b>Project:</b>	DUCHESNE COUNTY, UT	<b>MD Reference:</b>	WELL @ 6283.00ft (CAPSTAR 329)
<b>Site:</b>	GMB 14-14T-9-15H	<b>North Reference:</b>	True
<b>Well:</b>	GMB 14-14T-9-15H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	GMB 14-14T-9-15H		
<b>Design:</b>	Design #4		

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,761.00	0.31	288.19	4,760.18	-73.88	-8.57	72.55	1.15	-0.97	61.86
4,852.00	0.92	221.75	4,851.17	-74.35	-9.29	73.23	0.93	0.67	-73.01
4,942.00	1.32	190.06	4,941.15	-75.91	-9.95	74.92	0.80	0.44	-35.21
5,033.00	1.23	195.25	5,032.13	-77.88	-10.39	76.93	0.16	-0.10	5.70
5,124.00	1.41	180.77	5,123.11	-79.95	-10.67	78.96	0.41	0.20	-15.91
5,215.00	2.20	166.02	5,214.06	-82.76	-10.26	81.48	1.00	0.87	-16.21
<b>Start 96.20 hold at 5305.00 MD</b>									
5,305.00	1.98	176.48	5,304.00	-85.99	-9.75	84.36	0.49	-0.24	11.62
<b>Start DLS 11.00 TFO 3.65</b>									
5,401.20	1.98	176.48	5,400.15	-89.31	-9.54	87.42	0.00	0.00	0.00
5,450.00	7.35	179.15	5,448.77	-93.27	-9.44	91.13	11.00	10.99	5.47
5,500.00	12.84	179.58	5,497.97	-102.03	-9.35	99.36	11.00	11.00	0.85
5,550.00	18.34	179.75	5,546.11	-115.47	-9.28	112.01	11.00	11.00	0.35
5,600.00	23.84	179.84	5,592.75	-133.45	-9.22	128.96	11.00	11.00	0.19
5,650.00	29.34	179.90	5,637.44	-155.83	-9.17	150.06	11.00	11.00	0.12
5,700.00	34.84	179.95	5,679.78	-182.38	-9.13	175.10	11.00	11.00	0.09
5,750.00	40.34	179.98	5,719.38	-212.88	-9.12	203.86	11.00	11.00	0.07
<b>Start 100.00 hold at 5792.33 MD</b>									
5,792.33	45.00	180.00	5,750.50	-241.56	-9.11	230.92	11.00	11.00	0.05
5,800.00	45.00	180.00	5,755.92	-246.98	-9.11	236.04	0.00	0.00	0.00
<b>Start DLS 11.00 TFO 27.89</b>									
5,892.33	45.00	180.00	5,821.21	-312.27	-9.11	297.63	0.00	0.00	0.00
5,900.00	45.75	180.55	5,826.60	-317.73	-9.14	302.79	11.00	9.74	7.19
5,950.00	50.67	183.83	5,859.91	-354.96	-10.61	338.40	11.00	9.85	6.56
6,000.00	55.68	186.68	5,889.87	-394.79	-14.30	377.21	11.00	10.01	5.69
6,050.00	60.74	189.20	5,916.21	-436.86	-20.19	418.85	11.00	10.13	5.04
6,100.00	65.85	191.48	5,938.67	-480.78	-28.23	462.95	11.00	10.21	4.56
6,150.00	70.99	193.58	5,957.06	-526.15	-38.33	509.10	11.00	10.28	4.21
6,200.00	76.15	195.56	5,971.19	-572.54	-50.40	556.88	11.00	10.32	3.96
6,250.00	81.33	197.46	5,980.96	-619.54	-64.34	605.83	11.00	10.35	3.78
6,300.00	86.51	199.30	5,986.25	-666.70	-80.01	655.53	11.00	10.37	3.68
6,350.00	91.70	201.12	5,987.03	-713.60	-97.27	705.50	11.00	10.38	3.64
<b>Start 4274.73 hold at 6355.01 MD</b>									
6,355.01	92.22	201.30	5,986.86	-718.27	-99.08	710.50	10.99	10.37	3.64
6,400.00	92.22	201.30	5,985.12	-760.15	-115.41	755.43	0.00	0.00	0.00
6,500.00	92.22	201.30	5,981.24	-853.25	-151.71	855.30	0.00	0.00	0.00
6,600.00	92.22	201.30	5,977.37	-946.35	-188.01	955.17	0.00	0.00	0.00
6,700.00	92.22	201.30	5,973.50	-1,039.45	-224.31	1,055.03	0.00	0.00	0.00
6,800.00	92.22	201.30	5,969.62	-1,132.55	-260.60	1,154.90	0.00	0.00	0.00
6,900.00	92.22	201.30	5,965.75	-1,225.65	-296.90	1,254.77	0.00	0.00	0.00
7,000.00	92.22	201.30	5,961.88	-1,318.75	-333.20	1,354.64	0.00	0.00	0.00
7,100.00	92.22	201.30	5,958.00	-1,411.85	-369.50	1,454.50	0.00	0.00	0.00
7,200.00	92.22	201.30	5,954.13	-1,504.95	-405.80	1,554.37	0.00	0.00	0.00
7,300.00	92.22	201.30	5,950.25	-1,598.05	-442.09	1,654.24	0.00	0.00	0.00
7,400.00	92.22	201.30	5,946.38	-1,691.14	-478.39	1,754.11	0.00	0.00	0.00
7,500.00	92.22	201.30	5,942.51	-1,784.24	-514.69	1,853.97	0.00	0.00	0.00
7,600.00	92.22	201.30	5,938.63	-1,877.34	-550.99	1,953.84	0.00	0.00	0.00
7,700.00	92.22	201.30	5,934.76	-1,970.44	-587.29	2,053.71	0.00	0.00	0.00
7,800.00	92.22	201.30	5,930.89	-2,063.54	-623.58	2,153.58	0.00	0.00	0.00
7,900.00	92.22	201.30	5,927.01	-2,156.64	-659.88	2,253.44	0.00	0.00	0.00
8,000.00	92.22	201.30	5,923.14	-2,249.74	-696.18	2,353.31	0.00	0.00	0.00
8,100.00	92.22	201.30	5,919.26	-2,342.84	-732.48	2,453.18	0.00	0.00	0.00
8,200.00	92.22	201.30	5,915.39	-2,435.94	-768.77	2,553.05	0.00	0.00	0.00



# Weatherford International Ltd.

## Planning Report



<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GMB 14-14T-9-15H
<b>Company:</b>	NEWFIELD EXPLORATION CO.	<b>TVD Reference:</b>	WELL @ 6283.00ft (CAPSTAR 329)
<b>Project:</b>	DUCHESNE COUNTY, UT	<b>MD Reference:</b>	WELL @ 6283.00ft (CAPSTAR 329)
<b>Site:</b>	GMB 14-14T-9-15H	<b>North Reference:</b>	True
<b>Well:</b>	GMB 14-14T-9-15H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	GMB 14-14T-9-15H		
<b>Design:</b>	Design #4		

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,300.00	92.22	201.30	5,911.52	-2,529.04	-805.07	2,652.92	0.00	0.00	0.00
8,400.00	92.22	201.30	5,907.64	-2,622.14	-841.37	2,752.78	0.00	0.00	0.00
8,500.00	92.22	201.30	5,903.77	-2,715.24	-877.67	2,852.65	0.00	0.00	0.00
8,600.00	92.22	201.30	5,899.90	-2,808.34	-913.97	2,952.52	0.00	0.00	0.00
8,700.00	92.22	201.30	5,896.02	-2,901.43	-950.26	3,052.39	0.00	0.00	0.00
8,800.00	92.22	201.30	5,892.15	-2,994.53	-986.56	3,152.25	0.00	0.00	0.00
8,900.00	92.22	201.30	5,888.28	-3,087.63	-1,022.86	3,252.12	0.00	0.00	0.00
9,000.00	92.22	201.30	5,884.40	-3,180.73	-1,059.16	3,351.99	0.00	0.00	0.00
9,100.00	92.22	201.30	5,880.53	-3,273.83	-1,095.46	3,451.86	0.00	0.00	0.00
9,200.00	92.22	201.30	5,876.65	-3,366.93	-1,131.75	3,551.72	0.00	0.00	0.00
9,300.00	92.22	201.30	5,872.78	-3,460.03	-1,168.05	3,651.59	0.00	0.00	0.00
9,400.00	92.22	201.30	5,868.91	-3,553.13	-1,204.35	3,751.46	0.00	0.00	0.00
9,500.00	92.22	201.30	5,865.03	-3,646.23	-1,240.65	3,851.33	0.00	0.00	0.00
9,600.00	92.22	201.30	5,861.16	-3,739.33	-1,276.94	3,951.20	0.00	0.00	0.00
9,700.00	92.22	201.30	5,857.29	-3,832.43	-1,313.24	4,051.06	0.00	0.00	0.00
9,800.00	92.22	201.30	5,853.41	-3,925.53	-1,349.54	4,150.93	0.00	0.00	0.00
9,900.00	92.22	201.30	5,849.54	-4,018.62	-1,385.84	4,250.80	0.00	0.00	0.00
10,000.00	92.22	201.30	5,845.67	-4,111.72	-1,422.14	4,350.67	0.00	0.00	0.00
10,100.00	92.22	201.30	5,841.79	-4,204.82	-1,458.43	4,450.53	0.00	0.00	0.00
10,200.00	92.22	201.30	5,837.92	-4,297.92	-1,494.73	4,550.40	0.00	0.00	0.00
10,300.00	92.22	201.30	5,834.04	-4,391.02	-1,531.03	4,650.27	0.00	0.00	0.00
10,400.00	92.22	201.30	5,830.17	-4,484.12	-1,567.33	4,750.14	0.00	0.00	0.00
10,500.00	92.22	201.30	5,826.30	-4,577.22	-1,603.63	4,850.00	0.00	0.00	0.00
10,600.00	92.22	201.30	5,822.42	-4,670.32	-1,639.92	4,949.87	0.00	0.00	0.00
<b>TD at 10629.74</b>									
10,629.74	92.22	201.30	5,821.27	-4,698.01	-1,650.72	4,979.57	0.00	0.00	0.00

### Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL GMB 14-14T-9-	0.00	0.00	5,821.27	-4,698.01	-1,650.72	7,175,769.79	2,002,699.84	40° 0' 43.748 N	110° 12' 23.347 W
- plan hits target center									
- Point									

### Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,499.54	1,500.00	BASE USABLE WATER		-2.18	200.98
1,514.53	1,515.00	TOP GREEN RIVER		-2.18	200.98
	6,137.00	TOP WASATCH		-2.18	200.98



**Weatherford International Ltd.**  
Planning Report



<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GMB 14-14T-9-15H
<b>Company:</b>	NEWFIELD EXPLORATION CO.	<b>TVD Reference:</b>	WELL @ 6283.00ft (CAPSTAR 329)
<b>Project:</b>	DUCHESNE COUNTY, UT	<b>MD Reference:</b>	WELL @ 6283.00ft (CAPSTAR 329)
<b>Site:</b>	GMB 14-14T-9-15H	<b>North Reference:</b>	True
<b>Well:</b>	GMB 14-14T-9-15H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	GMB 14-14T-9-15H		
<b>Design:</b>	Design #4		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
5,305.00	5,304.00	-85.99	-9.75	Start 96.20 hold at 5305.00 MD
5,401.20	5,400.15	-89.31	-9.54	Start DLS 11.00 TFO 3.65
5,792.33	5,750.50	-241.56	-9.11	Start 100.00 hold at 5792.33 MD
5,892.33	5,821.21	-312.27	-9.11	Start DLS 11.00 TFO 27.89
6,355.01	5,986.86	-718.27	-99.08	Start 4274.73 hold at 6355.01 MD
10,629.74	5,821.27	-4,698.01	-1,650.72	TD at 10629.74

# NEWFIELD



## **NEWFIELD EXPLORATION CO.**

**DUCHESNE COUNTY, UT**

**GMB 14-14T-9-15H**

**GMB 14-14T-9-15H**

**GMB 14-14T-9-15H**

**Design #4**

## **Anticollision Report**

**11 April, 2011**



**Weatherford®**



# Weatherford International Ltd.

## Anticollision Report



<b>Company:</b>	NEWFIELD EXPLORATION CO.	<b>Local Co-ordinate Reference:</b>	Well GMB 14-14T-9-15H
<b>Project:</b>	DUCHESNE COUNTY, UT	<b>TVD Reference:</b>	WELL @ 6283.00ft (CAPSTAR 329)
<b>Reference Site:</b>	GMB 14-14T-9-15H	<b>MD Reference:</b>	WELL @ 6283.00ft (CAPSTAR 329)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	GMB 14-14T-9-15H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	GMB 14-14T-9-15H	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	Design #4	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Design #4
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria
<b>Interpolation Method:</b>	MD Interval 100.00ft
<b>Depth Range:</b>	Unlimited
<b>Results Limited by:</b>	Maximum center-center distance of 11,000.00ft
<b>Warning Levels Evaluated at:</b>	2.00 Sigma
<b>Error Model:</b>	ISCWSA
<b>Scan Method:</b>	Closest Approach 3D
<b>Error Surface:</b>	Elliptical Conic

Survey Tool Program		Date	4/11/2011		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
313.00	5,305.00	Survey #1 (GMB 14-14T-9-15H)	MWD	MWD - Standard	
5,305.00	10,629.74	Design #4 (GMB 14-14T-9-15H)	MWD	MWD - Standard	

Summary							
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Separation Factor	Warning	
Offset Well - Wellbore - Design							
GMB 14-14T-9-15H							
GMB 14-14T-9-15H - GMB 14-14T-9-15H - GMB 14-14T-9-15H	5,305.00	5,305.00	0.00	0.00	10,000.000	CC	
GMB 14-14T-9-15H - GMB 14-14T-9-15H - GMB 14-14T-9-15H	10,629.74	10,609.10	152.28	-13.25	0.920	Level 1, ES, SF	

<b>Offset Design</b>	GMB 14-14T-9-15H - GMB 14-14T-9-15H - GMB 14-14T-9-15H - GMB 14-14T-9-15H												<b>Offset Site Error:</b>	0.00 ft
<b>Survey Program:</b>	313-MWD												<b>Offset Well Error:</b>	0.00 ft
<b>Reference</b>	<b>Offset</b>	<b>Semi Major Axis</b>		<b>Distance</b>										<b>Warning</b>
<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Reference (ft)</b>	<b>Offset (ft)</b>	<b>Highside Toolface (°)</b>	<b>Offset Wellbore Centre +N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Between Centres (ft)</b>	<b>Between Ellipses (ft)</b>	<b>Minimum Separation (ft)</b>	<b>Separation Factor</b>		
5,305.00	5,304.00	5,305.00	5,304.00	0.00	0.00	115.32	-85.99	-9.75	0.00	0.00	0.00	N/A	CC	
5,400.00	5,398.95	5,399.98	5,398.89	0.11	0.21	21.36	-90.02	-9.79	0.80	0.49	0.31	2.602		
5,500.00	5,497.97	5,499.34	5,496.68	0.14	0.47	22.70	-106.50	-11.26	5.02	4.25	0.77	6.517		
5,600.00	5,592.75	5,597.87	5,588.84	0.24	0.81	38.41	-140.67	-15.67	10.43	8.50	1.93	5.398		
5,700.00	5,679.78	5,695.38	5,673.23	0.45	1.28	60.56	-188.49	-24.62	17.89	15.95	1.95	9.184		
5,800.00	5,755.92	5,790.51	5,747.76	0.83	1.94	83.13	-244.56	-42.86	34.80	32.43	2.37	14.666		
5,900.00	5,826.60	5,887.15	5,816.78	1.37	2.80	89.11	-308.36	-65.34	57.81	54.13	3.69	15.687		
6,000.00	5,889.87	5,982.73	5,879.71	2.08	3.76	87.87	-376.13	-88.99	77.65	72.31	5.35	14.528		
6,100.00	5,938.67	6,077.20	5,932.42	3.05	4.84	89.81	-449.29	-116.99	94.40	86.91	7.49	12.607		
6,200.00	5,971.19	6,177.80	5,972.69	4.29	6.16	92.00	-535.20	-149.77	106.16	96.03	10.13	10.477		
6,300.00	5,986.25	6,278.72	5,992.93	5.75	7.61	93.50	-627.61	-184.40	111.67	98.55	13.12	8.512		
6,400.00	5,985.12	6,379.29	5,995.14	7.34	9.11	95.24	-722.08	-218.68	110.52	94.30	16.22	6.813		
6,476.30	5,982.16	6,453.96	5,992.08	8.58	10.27	95.18	-791.75	-245.33	110.01	91.41	18.61	5.913		
6,500.00	5,981.24	6,477.43	5,990.73	8.97	10.63	94.94	-813.56	-253.91	110.05	90.70	19.35	5.688		
6,600.00	5,977.37	6,574.52	5,986.38	10.64	12.00	94.60	-903.60	-289.95	110.91	88.54	22.38	4.957		
6,700.00	5,973.50	6,672.85	5,982.52	12.33	13.41	94.42	-993.69	-329.15	114.75	89.29	25.46	4.507		
6,800.00	5,969.62	6,770.52	5,978.57	14.05	14.92	94.16	-1,082.67	-369.19	119.83	91.16	28.68	4.179		
6,900.00	5,965.75	6,875.07	5,973.47	15.78	16.57	93.50	-1,178.01	-411.71	124.54	92.47	32.07	3.884		
7,000.00	5,961.88	6,972.00	5,971.10	17.54	18.16	94.03	-1,267.05	-449.92	127.99	92.60	35.39	3.616		
7,100.00	5,958.00	7,075.92	5,966.70	19.31	19.83	93.77	-1,362.49	-490.79	131.24	92.41	38.83	3.380		
7,200.00	5,954.13	7,174.61	5,962.54	21.09	21.45	93.58	-1,453.86	-527.83	132.56	90.32	42.24	3.138		
7,300.00	5,950.25	7,278.58	5,957.44	22.89	23.20	93.09	-1,550.19	-566.54	133.52	87.71	45.81	2.915		
7,313.48	5,949.73	7,291.70	5,956.83	23.13	23.42	93.05	-1,562.41	-571.29	133.50	87.23	46.27	2.885		
7,400.00	5,946.38	7,376.72	5,953.69	24.69	24.77	93.10	-1,641.29	-602.83	134.26	85.06	49.19	2.729		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation





# Weatherford International Ltd.

## Anticollision Report



<b>Company:</b>	NEWFIELD EXPLORATION CO.	<b>Local Co-ordinate Reference:</b>	Well GMB 14-14T-9-15H
<b>Project:</b>	DUCHESNE COUNTY, UT	<b>TVD Reference:</b>	WELL @ 6283.00ft (CAPSTAR 329)
<b>Reference Site:</b>	GMB 14-14T-9-15H	<b>MD Reference:</b>	WELL @ 6283.00ft (CAPSTAR 329)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	GMB 14-14T-9-15H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	GMB 14-14T-9-15H	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	Design #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 313-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
7,500.00	5,942.51	7,475.12	5,949.64	26.51	26.42	92.95	-1,732.10	-640.52	136.39	83.73	52.66	2.590	
7,600.00	5,938.63	7,577.41	5,945.25	28.33	28.10	92.73	-1,826.59	-679.45	138.28	82.11	56.17	2.462	
7,700.00	5,934.76	7,679.58	5,941.64	30.16	29.83	92.89	-1,921.93	-715.98	137.71	77.98	59.73	2.306	
7,800.00	5,930.89	7,781.98	5,937.18	31.99	31.51	92.73	-2,018.02	-751.07	135.52	72.27	63.25	2.142	
7,818.60	5,930.17	7,797.14	5,936.68	32.33	31.76	92.77	-2,032.24	-756.30	135.18	71.34	63.84	2.117	
7,900.00	5,927.01	7,863.32	5,934.17	33.83	32.87	92.69	-2,091.91	-784.72	140.80	74.35	66.46	2.119	
8,000.00	5,923.14	7,959.82	5,930.20	35.68	34.60	92.39	-2,176.76	-830.49	153.02	83.00	70.03	2.185	
8,100.00	5,919.26	8,062.54	5,924.38	37.52	36.41	91.55	-2,267.27	-878.72	164.70	90.99	73.70	2.235	
8,200.00	5,915.39	8,162.00	5,920.16	39.38	38.14	91.34	-2,355.96	-923.52	174.26	96.97	77.29	2.255	
8,300.00	5,911.52	8,281.97	5,917.32	41.23	40.23	91.84	-2,464.09	-975.16	182.15	100.94	81.21	2.243	
8,400.00	5,907.64	8,390.20	5,921.08	43.09	42.06	94.45	-2,566.54	-1,009.82	177.89	93.17	84.73	2.100	
8,500.00	5,903.77	8,493.61	5,920.84	44.96	43.83	95.88	-2,665.15	-1,040.91	171.61	83.41	88.19	1.946	
8,600.00	5,899.90	8,592.98	5,912.89	46.82	45.54	94.69	-2,759.64	-1,070.54	164.48	72.56	91.92	1.789	
8,700.00	5,896.02	8,691.10	5,902.23	48.69	47.23	92.37	-2,852.27	-1,101.09	158.75	63.06	95.69	1.659	
8,800.00	5,892.15	8,788.15	5,893.24	50.56	48.85	90.48	-2,943.63	-1,132.49	154.56	55.30	99.26	1.557	
8,900.00	5,888.28	8,887.88	5,888.17	52.43	50.52	90.04	-3,037.80	-1,164.91	150.53	47.72	102.81	1.464	Level 3
9,000.00	5,884.40	8,988.48	5,883.75	54.31	52.24	89.83	-3,132.71	-1,198.00	146.91	40.50	106.42	1.381	Level 3
9,100.00	5,880.53	9,087.64	5,880.35	56.18	53.90	90.00	-3,226.34	-1,230.45	143.10	33.15	109.96	1.301	Level 3
9,200.00	5,876.65	9,186.18	5,875.85	58.06	55.60	89.72	-3,319.05	-1,263.52	140.20	26.66	113.54	1.235	Level 2
9,300.00	5,872.78	9,285.30	5,871.32	59.94	57.33	89.43	-3,412.08	-1,297.43	137.98	20.83	117.15	1.178	Level 2
9,370.59	5,870.05	9,353.52	5,867.78	61.27	58.56	89.06	-3,475.74	-1,321.69	137.46	17.76	119.70	1.148	Level 2
9,400.00	5,868.91	9,382.74	5,866.02	61.82	59.08	88.79	-3,502.91	-1,332.30	137.48	16.71	120.77	1.138	Level 2
9,500.00	5,865.03	9,483.36	5,861.00	63.70	60.81	88.33	-3,596.43	-1,369.09	137.82	13.46	124.36	1.108	Level 2
9,600.00	5,861.16	9,584.77	5,858.43	65.59	62.60	88.88	-3,691.45	-1,404.41	136.19	8.13	128.06	1.064	Level 2
9,691.79	5,857.60	9,674.81	5,853.67	67.31	64.18	88.34	-3,775.41	-1,436.56	135.66	4.32	131.34	1.033	Level 2
9,700.00	5,857.29	9,682.78	5,853.31	67.47	64.31	88.32	-3,782.83	-1,439.45	135.66	4.04	131.63	1.031	Level 2
9,800.00	5,853.41	9,782.53	5,850.25	69.35	66.00	88.66	-3,875.50	-1,476.23	136.24	1.02	135.23	1.008	Level 2
9,900.00	5,849.54	9,879.82	5,850.44	71.24	67.70	90.32	-3,965.69	-1,512.67	137.44	-1.40	138.84	0.990	Level 1
10,000.00	5,845.67	9,980.72	5,846.80	73.13	69.47	90.43	-4,058.70	-1,551.61	139.91	-2.59	142.50	0.982	Level 1
10,100.00	5,841.79	10,077.62	5,843.55	75.02	71.21	90.62	-4,147.72	-1,589.74	143.20	-2.93	146.12	0.980	Level 1
10,200.00	5,837.92	10,178.69	5,839.60	76.90	73.02	90.59	-4,240.23	-1,630.24	147.28	-2.54	149.83	0.983	Level 1
10,300.00	5,834.04	10,280.48	5,835.83	78.79	74.82	90.64	-4,334.11	-1,669.41	149.64	-3.87	153.51	0.975	Level 1
10,400.00	5,830.17	10,383.54	5,832.76	80.68	76.63	90.99	-4,429.75	-1,707.68	150.54	-6.67	157.20	0.958	Level 1
10,465.51	5,827.63	10,448.83	5,830.29	81.92	77.79	91.01	-4,490.59	-1,731.23	150.38	-9.21	159.60	0.942	Level 1
10,500.00	5,826.30	10,482.51	5,828.62	82.57	78.39	90.87	-4,521.89	-1,743.55	150.49	-10.37	160.86	0.936	Level 1
10,600.00	5,822.42	10,580.38	5,824.79	84.46	80.10	90.85	-4,612.60	-1,780.08	151.60	-12.86	164.45	0.922	Level 1
10,629.74	5,821.27	10,609.10	5,823.61	85.03	80.61	90.82	-4,639.09	-1,791.12	152.28	-13.25	165.53	0.920	Level 1, ES, SF



# Weatherford International Ltd.

## Anticollision Report



<b>Company:</b>	NEWFIELD EXPLORATION CO.	<b>Local Co-ordinate Reference:</b>	Well GMB 14-14T-9-15H
<b>Project:</b>	DUCHESNE COUNTY, UT	<b>TVD Reference:</b>	WELL @ 6283.00ft (CAPSTAR 329)
<b>Reference Site:</b>	GMB 14-14T-9-15H	<b>MD Reference:</b>	WELL @ 6283.00ft (CAPSTAR 329)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	GMB 14-14T-9-15H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	GMB 14-14T-9-15H	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	Design #4	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 6283.00ft (CAPSTAR 329) Coordinates are relative to: GMB 14-14T-9-15H  
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Utah Central Zone  
 Central Meridian is 111° 30' 0.000 W ° Grid Convergence at Surface is: 0.83°





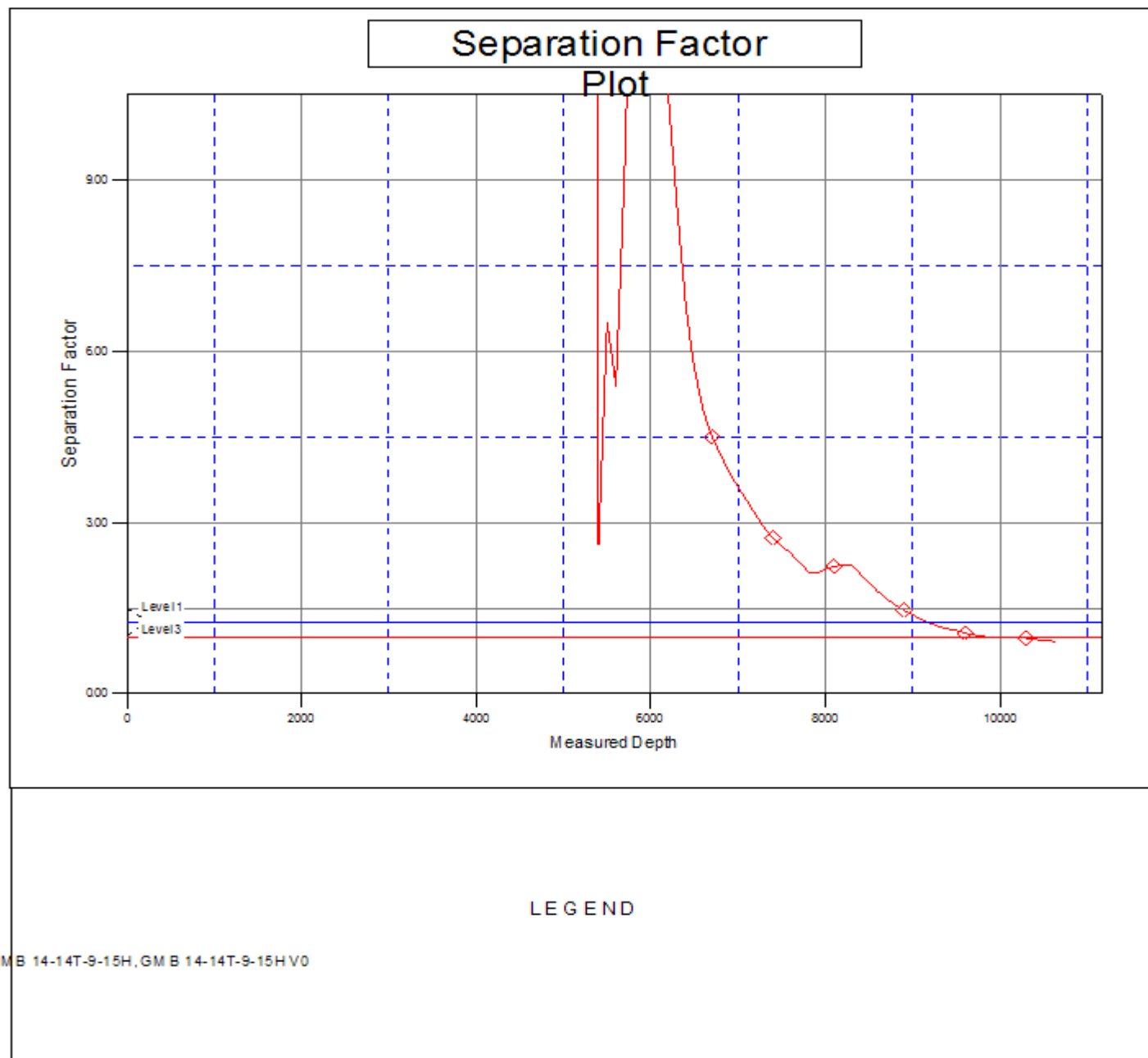
# Weatherford International Ltd.

## Anticollision Report



<b>Company:</b>	NEWFIELD EXPLORATION CO.	<b>Local Co-ordinate Reference:</b>	Well GMB 14-14T-9-15H
<b>Project:</b>	DUCHESNE COUNTY, UT	<b>TVD Reference:</b>	WELL @ 6283.00ft (CAPSTAR 329)
<b>Reference Site:</b>	GMB 14-14T-9-15H	<b>MD Reference:</b>	WELL @ 6283.00ft (CAPSTAR 329)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	GMB 14-14T-9-15H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	GMB 14-14T-9-15H	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	Design #4	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 6283.00ft (CAPSTAR 329) Coordinates are relative to: GMB 14-14T-9-15H  
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Utah Central Zone  
 Central Meridian is 111° 30' 0.000 W ° Grid Convergence at Surface is: 0.83°



STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

CONFIDENTIAL

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL:		5. LEASE DESIGNATION AND SERIAL NUMBER:	
OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER		USA UTU-68548	
2. NAME OF OPERATOR:		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
NEWFIELD PRODUCTION COMPANY		GMBU	
3. ADDRESS OF OPERATOR:		7. UNIT or CA AGREEMENT NAME:	
Route 3 Box 3630 CITY Myton STATE UT ZIP 84052		GMBU 14-14T-9-15H	
PHONE NUMBER		8. WELL NAME and NUMBER:	
435.646.3721		GMBU 14-14T-9-15H	
9. API NUMBER:		10. FIELD AND POOL, OR WILDCAT:	
4301350242		GREATER MB UNIT	
4. LOCATION OF WELL:		COUNTY: DUCHESNE	
FOOTAGES AT SURFACE:		STATE: UT	
OTR/OTR. SECTION. TOWNSHIP. RANGE. MERIDIAN: SESW, 14, T9S, R15E			

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate)  Approximate date work will  _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARITLY ABANDON	
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR	
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLAIR	
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only)  Date of Work Completion:  05/26/2011	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL	
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/STOP)	<input type="checkbox"/> WATER SHUT-OFF	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: - Weekly Status Report	
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION		

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The above subject well was completed on 5/26/2011, attached is a daily completion status report.

RECEIVED  
JUN 15 2011  
DIV. OF OIL, GAS & MINING

NAME (PLEASE PRINT) Jennifer Peatross TITLE Production Technician  
SIGNATURE *J Peatross* DATE 06/01/2011

(This space for State use only)

**Daily Activity Report**

Format For Sundry

**GMBU 14-14T-9-15H****3/1/2011 To 7/30/2011****5/6/2011 Day: 1****Completion**

WWS #5 on 5/6/2011 - Cement csg. - MIRU WWS #5. NU Schaeffer BOP. RU The Perforators wireline. Set WRP @ 5590'. Dump bail 10' of sand on WRP. RU hot oil truck to csg. Pressure well to set Csg. Pkrs. Pressure test csg. & WRP to 3500 psi. RD wireline. RIH w/ port collar shifting tool & 2 7/8" tbg. from trailer (tallying & drifting). RU BJ Cement crew. Hold 500 psi on tbg. Open port collar. Establish circulation up surface csg. Cement well w/ 283 sks of lead (PL II+3%KCL+5#CSE+.5#CF+5#KOL+.5SMS+FP+SF) @ 11 ppg and 3.50 yield and 310 sks of tail (50:50:2+3%KCL+.5%EC-1+.25#CF+.05#SF+.3SMS+FP-6L). Returned approx. 60 bbls cement to pit. Close port collar. RIH w/ 4 jts 2 7/8" tbg. Reverse tbg. clean. Pull up to 5252'. ND BOP. Land tbg. on B-2 adapter flange. SWIFN.

**Daily Cost:** \$0**Cumulative Cost:** \$34,710

---

**5/12/2011 Day: 2****Completion**

WWS #5 on 5/12/2011 - POOH w/ tbg. Run CBL. NU Isolation tool and frac valve. Pressure test Isolation tool and frac valve. - MIRU Western #5. ND adapter flange. NU Schaeffer BOP. POOH w/ tbg. RU The Perforators wireline and Heat Waves pump truck. Run CBL. RD The Perforators. ND Schaeffer BOP. NU Cameron Isolation tool and 7 1/6" frac valve. Pressure test csg., Isolation tool and frac valve to 6500 psi. Bleed off well. RD Heat Waves pump truck. SWIFN.

**Daily Cost:** \$0**Cumulative Cost:** \$46,963

---

**5/13/2011 Day: 3****Completion**

WWS #5 on 5/13/2011 - Release RBP. LD N-80 tbg. - Open well. MU RBP retrievin ghead. TIH w/ 176 jts tbg. Circulate 16' sand off of WRBP. Latch onto & release RBP. TOOHL laying down TBG. Get out of hole w/ 170 jts tbg. LD Retrieving head & RBP. RDMOSU WWS #5.

**Daily Cost:** \$0**Cumulative Cost:** \$50,613

---

**5/19/2011 Day: 4****Completion**

WWS #5 on 5/19/2011 - RU & test frac & flowback equipment. Frac stgs #1-7. - TU frac tree & flowback equipment. Pressure test frac & flowback equipment to 7500 psi. MIRU BJ Services frac equipment. Frac stgs #1-7. SDFN

**Daily Cost:** \$0**Cumulative Cost:** \$50,913

---

**5/20/2011 Day: 5****Completion**

WWS #5 on 5/20/2011 - Frac stgs #8-15. - Frac stg #8. BJ lost blender. SD to wait on replacement. Frac stgs #9-15. Drop last ball. Could not get ball to seat. RD BJ standpipe. Find ball stuck in 2' pup jt. Remove ball from pup jt. Drop ball into wellhead manually. SDFN

**Daily Cost:** \$0**Cumulative Cost:** \$51,213

---

**5/24/2011 Day: 6****Completion**

Rigless on 5/24/2011 - Frac stg #16. Flowback well - Drop last ball. & frac stg #1. RD BJ Services frac equipment. Open well to pit for immediate flowback. - Drop last ball. & frac stg #1. RD BJ Services frac equipment. Open well to pit for immediate flowback. - Flowed back 8561 BBLS total. MIRU The Perforators crane. RD flowback equipment. ND frac tree. RU WLT. PU & attempt to run in hole w/ first WRP. Could not get plug through wireline flange. ND flange find top set of slips to have have set due to shear pins being sheared. Wait on second WRP. RIH w/ wireline & set WRP @ 5460'. POOH w/ wireline. RD WLT & crane. Wait on service unit SWS #8 for completion. - Flowed back 8561 BBLS total. MIRU The Perforators crane. RD flowback equipment. ND frac tree. RU WLT. PU & attempt to run in hole w/ first WRP. Could not get plug through wireline flange. ND flange find top set of slips to have have set due to shear pins being sheared. Wait on second WRP. RIH w/ wireline & set WRP @ 5460'. POOH w/ wireline. RD WLT & crane. Wait on service unit SWS #8 for completion.

**Daily Cost:** \$0**Cumulative Cost:** \$51,513

---

**5/25/2011 Day: 8****Completion**

Stone #8 on 5/25/2011 - MIRUSU SWS #8. Pick up tbg. Circulate clean & load hole w/ 10# brine. - MIRUSU SWS #8. ND Frac tree. NU Schaffer BOP. RU work floor. Prep & tally tbg. MU retrieving head. TIH w/ tbg picking up & drifting tbg. Get in hole w/ 171 jts tbg to leave EOT @ 5358'. RU HOT. Circulate out oil & gas w/ 130 bbls 10# brine wtr. SDFN - MIRUSU SWS #8. ND Frac tree. NU Schaffer BOP. RU work floor. Prep & tally tbg. MU retrieving head. TIH w/ tbg picking up & drifting tbg. Get in hole w/ 171 jts tbg to leave EOT @ 5358'. RU HOT. Circulate out oil & gas w/ 130 bbls 10# brine wtr. SDFN - Open well. TBG & CSG 0 psi. PU 4 jts tbg. Latch onto & release WRP. TOO H w/ tbg. Get out of hole w/ tbg. LD WRP. MU btm hole assembly & TIH w/ tbg detail @ follows. BP & collar, 3 jts tbg, de-sander, 4' tbg sub, 1 jt tbg, PSN, 1 jt tbg, TAC, & 185 jts tbg. Get in hole w/ tbg. RD workfloor. ND BOP. Set TAC. MU tbg hanger. Land tbg in wellhead w/ 18000# tension. NU wellhead. RDMOSU SWS #8. MIRU Weatherford Co-Rod unit. Had to rig down unit & re-spot spool & rod guide. SDFN - Open well. TBG & CSG 0 psi. PU 4 jts tbg. Latch onto & release WRP. TOO H w/ tbg. Get out of hole w/ tbg. LD WRP. MU btm hole assembly & TIH w/ tbg detail @ follows. BP & collar, 3 jts tbg, de-sander, 4' tbg sub, 1 jt tbg, PSN, 1 jt tbg, TAC, & 185 jts tbg. Get in hole w/ tbg. RD workfloor. ND BOP. Set TAC. MU tbg hanger. Land tbg in wellhead w/ 18000# tension. NU wellhead. RDMOSU SWS #8. MIRU Weatherford Co-Rod unit. Had to rig down unit & re-spot spool & rod guide. SDFN

**Daily Cost:** \$0**Cumulative Cost:** \$626,361

---

**5/26/2011 Day: 10****Completion**

Rigless on 5/26/2011 - Run Co-Rod & PWOP - Open well. PU & prime new Weatherford 2 1/2" x 1 3/4" x 22' x 25' x 29' RHBC pump. RIH w/ co-rod detail @ follows. On/Off tool, 4' x 7/8" guided rod sub, & 5789' - 7/8" semi-elliptical Co-Rod. Get in hole w/ rod string. Space out pump w/ 2 - 4', 1 - 6', & 8' x 7/8" pony subs. MU new Weatherford 1 1/2" x 26' polished rod. RU pumping unit. Fill & test tbg to 200 psi w/ hot oiler. Stroke test pump to 800 psi w/ unit. Good pump action. RDMO Co-Rod unit. PWOP @ 2:30 PM W/ 144" SL @ 5 SPM. FINAL

**REPORT! Finalized****Daily Cost:** \$0

**Cumulative Cost:** \$723,402

---

**Pertinent Files:** Go to File List



CONFIDENTIAL

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB NO. 1004-0137  
Expires: July 31, 2010

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.  
UTU-685481a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other  
b. Type of Completion: ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.,

Other: \_\_\_\_\_

6. If Indian, Allottee or Tribe Name  
NA7. Unit or CA Agreement Name and No.  
GMBU (GRRV)8. Lease Name and Well No.  
GMBU 14-14T-9-15H2. Name of Operator  
NEWFIELD EXPLORATION COMPANY3. Address  
1401 17TH ST. SUITE 1000 DENVER, CO 802023a. Phone No. (include area code)  
(435) 646-37219. AFI Well No.  
43-013-50242

4. Location of Well (Report location clearly and in accordance with Federal requirements)\*

At surface 510' FSL &amp; 2307' FNL (SE/SE) SEC. 14, T9S, R15E (UTU-68548)

At top prod. interval reported below 299' FNL &amp; 2055' FWL (NE/NW) SEC. 23, T9S, R15E (UTU-69548)

At total depth 1095' FSL &amp; 492' FWL (SW/SW) SEC. 23, T9S, R15E (UTU-02498)

10. Field and Pool or Exploratory  
MONUMENT BUTTE11. Sec., T., R., M., on Block and  
Survey or Area SEC. 14, T9S, R15E

12. County or Parish

DUCHESNE

13. State

UT

14. Date Spudded  
03/15/201115. Date T.D. Reached  
05/04/201116. Date Completed 05/21/2011  
☐ D & A ☒ Ready to Prod.17. Elevations (DF, RKB, RT, GL)\*  
6271' GL 6284' KB18. Total Depth: MD 10650'  
TVD 6828' 5821'19. Plug Back T.D.: MD 10630'  
TVD 5822'20. Depth Bridge Plug Set: MD  
TVD21. Type Electric & Other Mechanical Logs Run (Submit copy of each)  
DUAL IND GRD, SP, COMP. DENSITY, COMP. NEUTRON, GR, CALIPER, CMT BOND22. Was well cored? ☒ No ☐ Yes (Submit analysis)  
Was DST run? ☒ No ☐ Yes (Submit report)  
Directional Survey? ☐ No ☒ Yes (Submit copy)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12-1/4"	8-5/8" J-55	24#	0	311'		160 CLASS G			
7-7/8"	5-1/2" M-80	17#	0	6300'		283 PRIMLITE		234'	
6-1/8"	4-1/2" P-110	11.6#	6300'	10630'		310 50/50 POZ			

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2-7/8"	EOT@ 5985'	TA @ 5806'						

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Green River	6485'	10551'	6485-10551'	16.9 sq. in.	16	Sliding Sleeve
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, etc.

Depth Interval	Amount and Type of Material
6485-10551'	Frac w/ 478495#s 100 mesh and 478168# 40/70 sand in 37426 bbls of Slickwater fluid, in 16 stages.

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
5/22/11	6/1/11	24	→	277	115	100			2-1/2" x 1-3/4" x 22' x 25' x 29' RHBC Pump On/Off Tool, 7/8" Guided Rod, SE 4 Co-Rod
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→					PRODUCING	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

\*(See instructions and spaces for additional data on page 2)

RECEIVED  
APR 17 2012

DIV. OF OIL, GAS &amp; MINING

28b. Production - Interval C									
Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

28c. Production - Interval D									
Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

29. Disposition of Gas (Solid, used for fuel, vented, etc.)

SOLD AND USED FOR FUEL

30. Summary of Porous Zones (Include Aquifers):	31. Formation (Log) Markers
Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.	GEOLOGICAL MARKERS

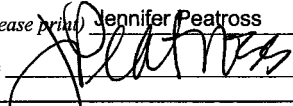
Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
GREEN RIVER	6485'	10551'		GARDEN GULCH MRK GARDEN GULCH 1	3595' 3833'
				GARDEN GULCH 2 POINT 3	3937' 4187'
				X MRKR Y MRKR	4457' 4492'
				DOUGLAS CREEK MRK BI CARBONATE MRK	4598' 4833'
				B LIMESTONE MRK CASTLE PEAK	4942' 5508'
				BASAL CARBONATE	6094'

32. Additional remarks (include plugging procedure):

33. Indicate which items have been attached by placing a check in the appropriate boxes:

<input type="checkbox"/> Electrical/Mechanical Logs (1 full set req'd.)	<input type="checkbox"/> Geologic Report	<input type="checkbox"/> DST Report	<input checked="" type="checkbox"/> Directional Survey
<input type="checkbox"/> Sundry Notice for plugging and cement verification	<input type="checkbox"/> Core Analysis	<input checked="" type="checkbox"/> Other: Drilling Daily Activity	

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)\*

Name (please print) Jennifer Peatross Title Production Technician  
 Signature  Date 03/14/2012

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 3)

(Form 3160-4, page 2)

CONFIDENTIAL



**Weatherford®**

Weatherford International Ltd.  
2000 Oil Drive  
Casper, WY 82604  
Tel. 307-268-7900 Fax 307-235-3958

Date: April 29, 2011

Attention: Lucy Chavez-Naupoto

Re: Newfield Exploration  
GMB 14-14T-9-15H  
DUCHESNE COUNTY, UT

Attached to this letter is a copy of the surveys taken by Precision Energy Services, a Weatherford International Ltd. company, MWD equipment on the subject well. The surveys from 313' to 10660.47' MD represent, to the best of our knowledge, a true and accurate survey of the wellbore at the time the survey was run.



Validity unknown

**Tracy Williams**

Digitally signed by  
Tracy Williams  
DN: cn=Tracy  
Williams,  
o=Weatherford  
International Ltd., c=US  
Date: 2009.09.22  
09:41:38 -06'00'

Tracy Williams  
Well Planning Department

Cc: Hans Wychgram  
Newfield Exploration

**NEWFIELD**



**Weatherford International Ltd.**

Survey Report



**Weatherford**

**Company:** NEWFIELD EXPLORATION CO.  
**Project:** DUCHESNE COUNTY, UT  
**Site:** GMB 14-14T-9-15H  
**Well:** GMB 14-14T-9-15H  
**Wellbore:** GMB 14-14T-9-15H  
**Design:** GMB 14-14T-9-15H

**Local Co-ordinate Reference:** Well GMB 14-14T-9-15H  
**TVD Reference:** WELL @ 6283.00ft (CAPSTAR 329)  
**MD Reference:** WELL @ 6283.00ft (CAPSTAR 329)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 2003.21 Single User Db

<b>Project</b>	DUCHESNE COUNTY, UT		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Utah Central Zone		

Site	GMB 14-14T-9-15H				
Site Position:		Northing:	7,180,491.27 ft	Latitude:	40° 1' 30.180 N
From:	Lat/Long	Easting:	2,004,282.13 ft	Longitude:	110° 12' 2.130 W
Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:	0.83 °

Well	GMB 14-14T-9-15H					
Well Position	+N/-S	0.00 ft	Northing:	7,180,491.27 ft	Latitude:	40° 1' 30.180 N
	+E/-W	0.00 ft	Easting:	2,004,282.13 ft	Longitude:	110° 12' 2.130 W
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,271.00 ft	

<b>Wellbore</b>	GMB 14-14T-9-15H					
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>	
	BGGM2010	3/11/2011	11.43	65.78	52,233	

Design	GMB 14-14T-9-15H				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.00	0.00	0.00	200.98	

<b>Survey Program</b>	<b>Date</b> 4/8/2011				
<b>From</b>	<b>To</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
313.00	10,670.00	Survey #1 (GMB 14-14T-9-15H)	MWD	MWD - Standard	

**Survey**

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
313.00	1.10	163.91	312.98	-2.89	0.83	2.40	0.35	0.35	0.00
405.00	1.14	171.52	404.96	-4.64	1.21	3.90	0.17	0.04	8.27
496.00	0.97	157.15	495.95	-6.25	1.64	5.24	0.34	-0.19	-15.79
588.00	1.10	163.96	587.93	-7.81	2.19	6.51	0.19	0.14	7.40
679.00	1.19	152.27	678.91	-9.49	2.87	7.83	0.27	0.10	-12.85
771.00	1.27	158.16	770.89	-11.28	3.70	9.21	0.16	0.09	6.40
862.00	1.32	149.32	861.87	-13.12	4.61	10.60	0.23	0.05	-9.71
952.00	1.10	148.27	951.85	-14.74	5.59	11.76	0.25	-0.24	-1.17
1,043.00	0.92	157.06	1,042.84	-16.16	6.33	12.82	0.26	-0.20	9.66
1,134.00	0.92	140.67	1,133.82	-17.40	7.08	13.71	0.29	0.00	-18.01
1,224.00	1.19	148.31	1,223.81	-18.75	8.03	14.63	0.34	0.30	8.49
1,315.00	1.14	150.42	1,314.79	-20.34	8.97	15.78	0.07	-0.05	2.32

NEWFIELD



Weatherford International Ltd.

Survey Report



Weatherford

**Company:** NEWFIELD EXPLORATION CO.  
**Project:** DUCHESNE COUNTY, UT  
**Site:** GMB 14-14T-9-15H  
**Well:** GMB 14-14T-9-15H  
**Wellbore:** GMB 14-14T-9-15H  
**Design:** GMB 14-14T-9-15H

**Local Co-ordinate Reference:** Well GMB 14-14T-9-15H  
**TVD Reference:** WELL @ 6283.00ft (CAPSTAR 329)  
**MD Reference:** WELL @ 6283.00ft (CAPSTAR 329)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 2003.21 Single User Db

## Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,406.00	1.01	164.49	1,405.77	-21.90	9.63	17.00	0.32	-0.14	15.46
1,496.00	1.32	163.00	1,495.76	-23.66	10.15	18.45	0.35	0.34	-1.66
1,587.00	1.27	173.76	1,586.73	-25.66	10.57	20.18	0.27	-0.05	11.82
1,678.00	1.54	177.93	1,677.71	-27.89	10.72	22.20	0.32	0.30	4.58
1,768.00	1.32	185.27	1,767.68	-30.13	10.67	24.31	0.32	-0.24	8.16
1,859.00	1.05	201.93	1,858.66	-31.95	10.26	26.15	0.48	-0.30	18.31
1,950.00	1.41	195.77	1,949.64	-33.80	9.65	28.10	0.42	0.40	-6.77
2,041.00	1.54	202.37	2,040.61	-36.00	8.88	30.44	0.23	0.14	7.25
2,131.00	0.31	187.64	2,130.59	-37.36	8.38	31.89	1.38	-1.37	-16.37
2,222.00	0.66	204.96	2,221.59	-38.08	8.13	32.65	0.41	0.38	19.03
2,313.00	0.79	205.71	2,312.58	-39.12	7.64	33.80	0.14	0.14	0.82
2,403.00	0.83	210.28	2,402.57	-40.25	7.04	35.06	0.08	0.04	5.08
2,494.00	1.10	202.67	2,493.56	-41.62	6.37	36.58	0.33	0.30	-8.36
2,585.00	1.71	205.40	2,584.53	-43.65	5.45	38.81	0.67	0.67	3.00
2,675.00	0.44	254.35	2,674.52	-44.96	4.54	40.35	1.62	-1.41	54.39
2,766.00	0.97	241.87	2,765.51	-45.42	3.53	41.14	0.60	0.58	-13.71
2,857.00	0.97	233.22	2,856.50	-46.24	2.23	42.38	0.16	0.00	-9.51
2,947.00	1.19	215.82	2,946.48	-47.46	1.07	43.93	0.44	0.24	-19.33
3,038.00	1.67	216.21	3,037.45	-49.29	-0.26	46.12	0.53	0.53	0.43
3,129.00	0.22	265.82	3,128.44	-50.37	-1.22	47.47	1.69	-1.59	54.52
3,219.00	0.00	140.36	3,218.44	-50.39	-1.39	47.55	0.24	-0.24	0.00
3,310.00	0.26	113.51	3,309.44	-50.47	-1.21	47.55	0.29	0.29	0.00
3,401.00	0.44	184.92	3,400.44	-50.90	-1.05	47.90	0.48	0.20	78.47
3,492.00	0.79	201.71	3,491.43	-51.83	-1.31	48.86	0.43	0.38	18.45
3,582.00	0.84	194.78	3,581.42	-53.05	-1.71	50.14	0.12	0.06	-7.70
3,673.00	1.02	202.80	3,672.41	-54.44	-2.19	51.61	0.24	0.20	8.81
3,764.00	1.58	204.21	3,763.39	-56.33	-3.02	53.67	0.62	0.62	1.55
3,854.00	1.45	214.89	3,853.35	-58.39	-4.18	56.02	0.34	-0.14	11.87
3,945.00	0.62	178.55	3,944.34	-59.83	-4.82	57.59	1.12	-0.91	-39.93
4,036.00	0.62	167.65	4,035.33	-60.80	-4.71	58.46	0.13	0.00	-11.98
4,126.00	1.10	171.47	4,125.32	-62.13	-4.47	59.62	0.54	0.53	4.24
4,217.00	1.67	192.83	4,216.30	-64.29	-4.64	61.69	0.83	0.63	23.47
4,308.00	0.48	212.30	4,307.28	-65.91	-5.14	63.37	1.35	-1.31	21.40
4,398.00	1.01	207.95	4,397.27	-66.92	-5.71	64.53	0.59	0.59	-4.83
4,489.00	1.41	189.27	4,488.25	-68.74	-6.27	66.42	0.61	0.44	-20.53
4,580.00	1.89	187.91	4,579.21	-71.33	-6.65	68.98	0.53	0.53	-1.49
4,670.00	1.19	231.90	4,669.18	-73.38	-7.59	71.23	1.47	-0.78	48.88
4,761.00	0.31	288.19	4,760.18	-73.88	-8.57	72.05	1.15	-0.97	61.86
4,852.00	0.92	221.75	4,851.17	-74.35	-9.29	72.75	0.93	0.67	-73.01
4,942.00	1.32	190.06	4,941.15	-75.91	-9.95	74.44	0.80	0.44	-35.21
5,033.00	1.23	195.25	5,032.13	-77.88	-10.39	76.44	0.16	-0.10	5.70
5,124.00	1.41	180.77	5,123.11	-79.95	-10.67	78.46	0.41	0.20	-15.91
5,215.00	2.20	166.02	5,214.06	-82.76	-10.26	80.95	1.00	0.87	-16.21
5,305.00	1.98	176.48	5,304.00	-85.99	-9.75	83.78	0.49	-0.24	11.62
5,395.00	2.24	175.34	5,393.98	-87.09	-9.67	84.78	0.88	0.87	-3.80
5,385.00	2.58	185.62	5,383.94	-89.18	-9.70	86.74	1.10	0.68	20.56
5,415.00	5.19	187.18	5,413.87	-91.20	-9.93	88.71	8.71	8.70	5.20
5,445.00	8.88	182.56	5,443.64	-94.86	-10.21	92.23	12.43	12.30	-15.40
5,475.00	12.94	185.81	5,473.09	-100.52	-10.65	97.67	13.68	13.53	10.83
5,505.00	16.25	185.81	5,502.12	-108.04	-11.41	104.96	11.03	11.03	0.00
5,535.00	19.00	186.06	5,530.71	-117.07	-12.36	113.74	9.17	9.17	0.83
5,565.00	22.00	188.43	5,558.80	-127.49	-13.70	123.94	10.37	10.00	7.90
5,595.00	25.50	188.56	5,586.26	-139.44	-15.48	135.74	11.67	11.67	0.43
5,625.00	28.13	188.81	5,613.03	-152.82	-17.53	148.96	8.77	8.77	0.83



Weatherford International Ltd.  
Survey Report



Company: NEWFIELD EXPLORATION CO.  
Project: DUCHESNE COUNTY, UT  
Site: GMB 14-14T-9-15H  
Well: GMB 14-14T-9-15H  
Wellbore: GMB 14-14T-9-15H  
Design: GMB 14-14T-9-15H

Local Co-ordinate Reference: Well GMB 14-14T-9-15H  
TVD Reference: WELL @ 6283.00ft (CAPSTAR 329)  
MD Reference: WELL @ 6283.00ft (CAPSTAR 329)  
North Reference: True  
Survey Calculation Method: Minimum Curvature  
Database: EDM 2003.21 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,655.00	30.69	190.93	5,639.16	-167.33	-20.06	163.41	9.21	8.53	7.07
5,685.00	33.31	192.56	5,664.60	-182.89	-23.30	179.10	9.20	8.73	5.43
5,715.00	35.81	196.31	5,689.31	-199.35	-27.56	196.00	10.94	8.33	12.50
5,745.00	38.63	198.93	5,713.20	-216.64	-33.07	214.11	10.78	9.40	8.73
5,775.00	41.19	199.56	5,736.21	-234.81	-39.41	233.35	8.64	8.53	2.10
5,805.00	43.75	199.18	5,758.33	-253.92	-46.13	253.60	8.58	8.53	-1.27
5,835.00	44.81	199.56	5,779.81	-273.68	-53.08	274.53	3.64	3.53	1.27
5,865.00	44.88	199.43	5,801.08	-293.62	-60.14	295.68	0.38	0.23	-0.43
5,895.00	44.88	199.43	5,822.34	-313.58	-67.18	316.84	0.00	0.00	0.00
5,925.00	47.25	199.56	5,843.15	-333.95	-74.39	338.44	7.91	7.90	0.43
5,955.00	51.31	198.56	5,862.72	-355.43	-81.80	361.16	13.77	13.53	-3.33
5,985.00	53.25	199.81	5,881.07	-377.84	-89.61	384.87	7.26	6.47	4.17
6,015.00	54.88	200.06	5,898.68	-400.68	-97.89	409.16	5.48	5.43	0.83
6,045.00	56.81	201.93	5,915.52	-423.85	-106.79	433.98	8.25	6.43	6.23
6,075.00	59.69	201.81	5,931.31	-447.52	-116.29	459.49	9.61	9.60	-0.40
6,105.00	63.38	200.81	5,945.60	-472.09	-125.87	485.85	12.64	12.30	-3.33
6,135.00	67.31	200.93	5,958.12	-497.56	-135.58	513.11	13.11	13.10	0.40
6,165.00	71.25	200.56	5,968.73	-523.80	-145.51	541.17	13.18	13.13	-1.23
6,195.00	74.56	200.06	5,977.55	-550.68	-155.46	569.84	11.15	11.03	-1.67
6,225.00	77.94	200.93	5,984.68	-577.97	-165.67	598.97	11.61	11.27	2.90
6,255.00	81.45	200.75	5,990.04	-605.56	-176.17	628.48	11.71	11.70	-0.60
6,285.00	85.38	200.06	5,993.48	-633.48	-186.55	658.28	13.30	13.10	-2.30
6,297.00	86.89	199.61	5,994.29	-644.74	-190.62	670.25	13.13	12.58	-3.75
6,337.00	90.00	199.93	5,995.38	-682.37	-204.14	710.22	7.82	7.78	0.80
6,382.00	90.68	200.32	5,995.11	-724.62	-219.62	755.21	1.74	1.51	0.87
6,428.00	93.21	201.20	5,993.55	-767.60	-235.91	801.18	5.82	5.50	1.91
6,473.00	93.33	201.54	5,990.98	-809.44	-252.29	846.11	0.80	0.27	0.76
6,518.00	91.98	201.18	5,988.90	-851.31	-268.66	891.06	3.10	-3.00	-0.80
6,564.00	92.96	202.80	5,986.91	-893.92	-285.87	937.00	4.11	2.13	3.52
6,609.00	92.59	203.60	5,984.73	-935.23	-303.57	981.92	1.96	-0.82	1.78
6,654.00	91.73	203.64	5,983.04	-976.43	-321.59	1,026.84	1.91	-1.91	0.09
6,700.00	90.92	203.76	5,981.98	-1,018.54	-340.07	1,072.77	1.78	-1.76	0.26
6,745.00	93.52	204.65	5,980.23	-1,059.55	-358.51	1,117.66	6.11	5.78	1.98
6,790.00	94.24	205.21	5,977.19	-1,100.26	-377.43	1,162.45	2.03	1.60	1.24
6,836.00	92.38	203.59	5,974.53	-1,142.08	-396.40	1,208.29	5.36	-4.04	-3.52
6,881.00	90.49	202.43	5,973.40	-1,183.48	-413.98	1,253.25	4.93	-4.20	-2.58
6,926.00	91.73	203.28	5,972.53	-1,224.94	-431.46	1,298.21	3.34	2.76	1.89
6,972.00	91.85	204.08	5,971.10	-1,267.05	-449.92	1,344.14	1.76	0.26	1.74
7,017.00	92.59	203.13	5,969.35	-1,308.25	-467.93	1,389.06	2.67	1.64	-2.11
7,062.00	92.65	202.78	5,967.30	-1,349.64	-485.46	1,433.98	0.79	0.13	-0.78
7,108.00	91.30	201.17	5,965.71	-1,392.27	-502.66	1,479.95	4.57	-2.93	-3.50
7,153.00	93.39	202.71	5,963.87	-1,433.98	-519.46	1,524.90	5.77	4.64	3.42
7,198.00	93.95	203.21	5,960.99	-1,475.33	-536.98	1,569.78	1.67	1.24	1.11
7,244.00	91.73	200.76	5,958.71	-1,517.92	-554.18	1,615.71	7.18	-4.83	-5.33
7,289.00	92.72	201.29	5,956.96	-1,559.90	-570.31	1,660.68	2.50	2.20	1.18
7,334.00	91.97	201.96	5,955.12	-1,601.69	-586.88	1,705.63	2.23	-1.67	1.49
7,380.00	91.85	201.93	5,953.59	-1,644.34	-604.06	1,751.60	0.27	-0.26	-0.07
7,425.00	92.78	202.83	5,951.77	-1,685.91	-621.18	1,796.55	2.87	2.07	2.00
7,470.00	92.16	202.63	5,949.83	-1,727.38	-638.55	1,841.49	1.45	-1.38	-0.44
7,516.00	92.04	202.56	5,948.14	-1,769.82	-656.21	1,887.44	0.30	-0.26	-0.15
7,561.00	93.21	202.19	5,946.08	-1,811.39	-673.32	1,932.38	2.73	2.60	-0.82
7,607.00	91.50	200.77	5,944.19	-1,854.15	-690.15	1,978.33	4.83	-3.72	-3.09
7,652.00	92.20	200.95	5,942.74	-1,896.18	-706.17	2,023.31	1.61	1.56	0.40
7,697.00	92.47	200.66	5,940.91	-1,938.21	-722.14	2,068.27	0.88	0.60	-0.64



**Company:** NEWFIELD EXPLORATION CO.  
**Project:** DUCHESNE COUNTY, UT  
**Site:** GMB 14-14T-9-15H  
**Well:** GMB 14-14T-9-15H  
**Wellbore:** GMB 14-14T-9-15H  
**Design:** GMB 14-14T-9-15H

**Local Co-ordinate Reference:** Well GMB 14-14T-9-15H  
**TVD Reference:** WELL @ 6283.00ft (CAPSTAR 329)  
**MD Reference:** WELL @ 6283.00ft (CAPSTAR 329)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 2003.21 Single User Db

## Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,743.00	92.78	199.62	5,938.80	-1,981.35	-737.96	2,114.22	2.36	0.67	-2.26
7,788.00	91.85	199.76	5,936.98	-2,023.69	-753.11	2,159.17	2.09	-2.07	0.31
7,833.00	92.53	206.85	5,935.26	-2,064.96	-770.89	2,204.07	15.82	1.51	15.76
7,879.00	91.14	207.82	5,933.79	-2,105.80	-792.00	2,249.76	3.68	-3.02	2.11
7,924.00	92.96	208.76	5,932.18	-2,145.40	-813.31	2,294.37	4.55	4.04	2.09
7,969.00	93.46	208.65	5,929.66	-2,184.80	-834.89	2,338.89	1.14	1.11	-0.24
8,015.00	93.21	207.94	5,926.98	-2,225.24	-856.66	2,384.44	1.63	-0.54	-1.54
8,060.00	93.08	207.49	5,924.51	-2,265.02	-877.55	2,429.06	1.04	-0.29	-1.00
8,117.00	92.28	205.98	5,921.85	-2,315.87	-903.17	2,485.71	3.00	-1.40	-2.65
8,162.00	92.03	207.86	5,920.16	-2,355.96	-923.52	2,530.43	4.21	-0.56	4.18
8,207.00	92.47	207.44	5,918.39	-2,395.79	-944.39	2,575.09	1.35	0.98	-0.93
8,253.00	90.35	203.59	5,917.26	-2,437.28	-964.19	2,620.93	9.55	-4.61	-8.37
8,298.00	88.89	199.38	5,917.56	-2,479.14	-980.67	2,665.91	9.90	-3.24	-9.36
8,343.00	87.00	198.13	5,919.17	-2,521.72	-995.13	2,710.85	5.03	-4.20	-2.78
8,389.00	88.33	198.16	5,921.04	-2,565.40	-1,009.44	2,756.75	2.89	2.89	0.07
8,434.00	89.94	197.48	5,921.72	-2,608.23	-1,023.21	2,801.68	3.88	3.58	-1.51
8,479.00	91.23	197.12	5,921.26	-2,651.19	-1,036.59	2,846.58	2.98	2.87	-0.80
8,525.00	94.01	197.59	5,919.16	-2,695.05	-1,050.30	2,892.43	6.13	6.04	1.02
8,570.00	95.93	197.15	5,915.26	-2,737.83	-1,063.68	2,937.17	4.38	4.27	-0.98
8,615.00	95.93	198.32	5,910.61	-2,780.46	-1,077.32	2,981.86	2.59	0.00	2.60
8,661.00	96.35	198.31	5,905.69	-2,823.88	-1,091.69	3,027.55	0.91	0.91	-0.02
8,706.00	97.11	198.33	5,900.42	-2,866.31	-1,105.74	3,072.19	1.69	1.69	0.04
8,751.00	94.38	199.42	5,895.92	-2,908.67	-1,120.22	3,116.93	6.53	-6.07	2.42
8,797.00	93.77	199.22	5,892.65	-2,951.97	-1,135.40	3,162.79	1.40	-1.33	-0.43
8,842.00	92.47	198.66	5,890.20	-2,994.47	-1,149.98	3,207.69	3.14	-2.89	-1.24
8,887.00	92.59	199.33	5,888.21	-3,036.98	-1,164.62	3,252.62	1.51	0.27	1.49
8,933.00	92.71	199.27	5,886.08	-3,080.34	-1,179.80	3,298.55	0.29	0.26	-0.13
8,978.00	92.22	199.09	5,884.15	-3,122.81	-1,194.57	3,343.49	1.16	-1.09	-0.40
9,023.00	92.03	199.01	5,882.48	-3,165.31	-1,209.25	3,388.43	0.46	-0.42	-0.18
9,069.00	91.67	199.19	5,881.00	-3,208.76	-1,224.30	3,434.38	0.87	-0.78	0.39
9,114.00	93.21	199.65	5,879.08	-3,251.16	-1,239.24	3,479.33	3.57	3.42	1.02
9,159.00	92.10	199.59	5,876.99	-3,293.50	-1,254.34	3,524.26	2.47	-2.47	-0.13
9,204.00	93.15	200.19	5,874.93	-3,335.77	-1,269.63	3,569.21	2.69	2.33	1.33
9,250.00	92.16	199.79	5,872.80	-3,378.95	-1,285.34	3,615.15	2.32	-2.15	-0.87
9,295.00	92.78	200.45	5,870.86	-3,421.17	-1,300.80	3,660.10	2.01	1.38	1.47
9,340.00	93.14	201.25	5,868.54	-3,463.16	-1,316.80	3,705.04	1.95	0.80	1.78
9,386.00	93.65	201.36	5,865.82	-3,505.94	-1,333.48	3,750.96	1.13	1.11	0.24
9,431.00	93.00	201.66	5,863.21	-3,547.74	-1,349.95	3,795.88	1.59	-1.44	0.67
9,477.00	91.97	201.31	5,861.21	-3,590.50	-1,366.79	3,841.84	2.36	-2.24	-0.76
9,522.00	90.93	200.10	5,860.07	-3,632.58	-1,382.69	3,886.82	3.54	-2.31	-2.69
9,567.00	91.67	200.28	5,859.05	-3,674.80	-1,398.22	3,931.80	1.69	1.64	0.40
9,613.00	93.44	200.95	5,857.00	-3,717.81	-1,414.40	3,977.76	4.11	3.85	1.46
9,658.00	92.96	201.05	5,854.49	-3,759.76	-1,430.50	4,022.69	1.09	-1.07	0.22
9,703.00	92.10	201.65	5,852.50	-3,801.63	-1,446.86	4,067.64	2.33	-1.91	1.33
9,748.00	92.04	201.75	5,850.88	-3,843.41	-1,463.49	4,112.61	0.26	-0.13	0.22
9,794.00	89.38	201.48	5,850.31	-3,886.17	-1,480.43	4,158.60	5.81	-5.78	-0.59
9,839.00	89.08	202.09	5,850.91	-3,927.95	-1,497.13	4,203.59	1.51	-0.67	1.36
9,885.00	92.66	202.74	5,850.21	-3,970.47	-1,514.67	4,249.56	7.91	7.78	1.41
9,930.00	92.12	203.07	5,848.34	-4,011.88	-1,532.17	4,294.50	1.41	-1.20	0.73
9,975.00	91.42	202.11	5,846.95	-4,053.41	-1,549.44	4,339.46	2.64	-1.56	-2.13
10,021.00	92.59	203.50	5,845.34	-4,095.79	-1,567.26	4,385.40	3.95	2.54	3.02
10,066.00	91.23	203.30	5,843.84	-4,137.06	-1,585.12	4,430.34	3.05	-3.02	-0.44
10,111.00	92.59	204.16	5,842.34	-4,178.23	-1,603.22	4,475.26	3.58	3.02	1.91
10,157.00	92.17	203.27	5,840.43	-4,220.31	-1,621.71	4,521.17	2.14	-0.91	-1.93





**Company:** NEWFIELD EXPLORATION CO.  
**Project:** DUCHESNE COUNTY, UT  
**Site:** GMB 14-14T-9-15H  
**Well:** GMB 14-14T-9-15H  
**Wellbore:** GMB 14-14T-9-15H  
**Design:** GMB 14-14T-9-15H

**Local Co-ordinate Reference:** Well GMB 14-14T-9-15H  
**TVD Reference:** WELL @ 6283.00ft (CAPSTAR 329)  
**MD Reference:** WELL @ 6283.00ft (CAPSTAR 329)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 2003.21 Single User Db

## Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,202.00	92.20	202.89	5,838.71	-4,261.68	-1,639.33	4,566.10	0.85	0.07	-0.84
10,247.00	92.10	202.43	5,837.02	-4,303.18	-1,656.66	4,611.05	1.05	-0.22	-1.02
10,293.00	91.94	202.36	5,835.40	-4,345.68	-1,674.17	4,657.01	0.38	-0.35	-0.15
10,338.00	91.42	201.68	5,834.08	-4,387.38	-1,691.04	4,701.98	1.90	-1.16	-1.51
10,383.00	91.91	201.21	5,832.78	-4,429.25	-1,707.48	4,746.96	1.51	1.09	-1.04
10,429.00	92.22	201.09	5,831.12	-4,472.12	-1,724.07	4,792.93	0.72	0.67	-0.26
10,474.00	93.02	201.58	5,829.06	-4,513.99	-1,740.42	4,837.88	2.08	1.78	1.09
10,519.00	92.47	201.79	5,826.91	-4,555.76	-1,757.03	4,882.83	1.31	-1.22	0.47
10,565.00	91.60	202.20	5,825.27	-4,598.38	-1,774.25	4,928.79	2.09	-1.89	0.89
<b>LAST SVY</b>									
10,610.00	92.75	202.82	5,823.57	-4,639.92	-1,791.47	4,973.74	2.90	2.56	1.38
<b>PBHL GMB 14-14T-9-15H</b>									
10,660.47	92.75	202.82	5,821.14	-4,686.39	-1,811.02	5,024.13	0.00	0.00	0.00
<b>PROJ SVY</b>									
10,670.00	92.75	202.82	5,820.69	-4,695.16	-1,814.71	5,033.64	0.00	0.00	0.00

## Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
10,610.00	5,823.57	-4,639.92	-1,791.47	LAST SVY
10,670.00	5,820.69	-4,695.16	-1,814.71	PROJ SVY

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

**Daily Activity Report****Format For Sundry****GMBU 14-14T-9-15H****1/1/2011 To 5/30/2011****GMBU 14-14T-9-15H****Waiting on Cement****Date:** 3/24/2011

Ross #29 at 311. Days Since Spud - yield. Returned 4.5bbls to pit, bump plug to 356psi, BLM and State were notified of spud via email. - On 3/15/11 Ross #29 spud and drilled 310' of 12 1/4" hole, P/U and run 7 jts of 8 5/8" casing set - @ 311.44'KB. On 3/15/11 cement w/BJ w/160 sks of class G+2%kcl+.25#CF mixed @ 15.8ppg and 1.17

**Daily Cost:** \$0**Cumulative Cost:** \$119,986**GMBU 14-14T-9-15H****Drill Cement****Date:** 3/25/2011

Capstar #329 at 311. 0 Days Since Spud - Install wear bushing in 11" 5K head - Trip & pick up directional bha, install RH, and TIH - Pressure test BOP's & Test Blind & Pipe rams to 250 low & 2000 high - Nipple up BOP's - MR to new locatin - Test choke line, Choke manifold, Lower Kelly cock & safety valve to 250 low 2000 high - Test annular to 250 low and 1500 high, Test csg to 1500 psi & all equipt tested good - Rig up & hook up kill lines, c/o fill up line, load pipe racks & SLM same - Rig up

**Daily Cost:** \$0**Cumulative Cost:** \$146,852**GMBU 14-14T-9-15H****Drill 7 7/8" hole with fresh water****Date:** 3/26/2011

Capstar #329 at 3773. 1 Days Since Spud - Drill 7 7/8" hole 311'-1390' (1079') @ 165 fph, 140mm + 60 rot=200 trpm w/ 1200 psi pump press - Pull back 8 jts to get directional surveys - Drill 7 7/8" hole 1390'-2141' (751') @ 188 fph, 140mm + 60 rot=200 trpm w/ 1200 psi pump press - Rig service - Drill 7 7/8" hole 2141'-3773' (1632') @ 136 fph, 140mm + 60 rot=200 trpm w/ 1400 psi pump press - Tag cmt @ 263' & Drill cmt & float equipt to 311'

**Daily Cost:** \$0**Cumulative Cost:** \$179,464**GMBU 14-14T-9-15H****Drill 7 7/8" hole with fresh water****Date:** 3/27/2011

Capstar #329 at 5390. 2 Days Since Spud - Rig repair & work on drawworks motor - Pull kelly hose - TOOH to pick up curve / build assembly - Build and pump slug - Pull 10 jts and check for flow & no flow - TOOH to pick up build assembly - Hole pulled tight @ +/- 5050' bring on mud pump & circulate pumping high vis pill - Pump high vis pill and circulate hole clean & pump slug - Drill 7 7/8" hole 4997'-5390' (393') @ 112 fph, 140mm + 60 rot=200 trpm w/ 1500 psi pump press - Rig service - Drill 7 7/8" hole 3773'-4997' (1224') @ 106 fph, 140mm + 60 rot=200 trpm w/ 1500 psi pump press - @ btms up return +/- 5 gl of large uncut solids, circulate hole clean

**Daily Cost:** \$0**Cumulative Cost:** \$253,925**GMBU 14-14T-9-15H****Drill 7 7/8" Curve section****Date:** 3/28/2011

Capstar #329 at 5811. 3 Days Since Spud - Slide/Rot for curve 5534'-5811' (277') @ 23 fph,

MM 136 rpm, 1450 psi pump pressure - Rig Service - Slide/Rot for curve 5390'-5534' (144') @ 29 fph, MM 136 rpm, 1450 psi pump pressure - raise mud weight from 9.0ppg to 9.3ppg while drilling curve - TIH to 4900' - Hook up kelly hose and SLM pipe on rack - TIH - Laydown verticle BHA & tools, P/U & M/U wthrfd Directional tools - Wash from 4900' to 5390' @ bottoms up return a excess amount of large undrilled shale

**Daily Cost:** \$0

**Cumulative Cost:** \$315,233

---

**GMBU 14-14T-9-15H**

**Drill 7 7/8" Curve section**

**Date:** 3/29/2011

Capstar #329 at 6260. 4 Days Since Spud - Rig service - Slide/Rot for curve 6078'-6260' (182') @ 15 fph, MM 136 rpm 30 rot = 190, 1550 psi pump pressure - Slide/Rot for curve 5811'-6078' (267') @ 23 fph, MM 136 rpm 30 rot = 190, 1550 psi pump pressure

**Daily Cost:** \$0

**Cumulative Cost:** \$347,542

---

**GMBU 14-14T-9-15H**

**Drill 7 7/8" Curve section**

**Date:** 3/30/2011

Capstar #329 at 6350. 5 Days Since Spud - Lay down curve directional bha - Pull rot head rubber and remove kelly hose - TOOH - Rig repair / work on trip tank fill pump - Rig service / work on trip tank fill pump - TOOH - Break circulation build and pump slug - pump high vis sweeps and raise MW from 9.5 - 9.7 sliver amounts lessen during circulation - circulate and reciprocate pipe, on bottoms up circulate up excess amounts of large uncut slivers, - Bring pump on slowly to break circulation raising pump to drilling rate with stable pressure, - TOOH / pulled tight @ 6008', work multiple times with no movement up pipe moving freely downhole - amount by the end of 3rd bottoms up - Circ & cond / Pump high vis sweep and circ hole clean some shale slivers @ bottoms up reduceing in - Slide/Rot for curve 6260'-6350' (90') @ 15 fph, MM 136 rpm 30 rot = 190, 1550 psi pump pressure - Pick up hunting 4 3/4", 1.5 deg, .46 rpg mm and scribe tools - Download to LWD tools / hold PJSM / & Load sources - TIH / load racks & SLM - TOOH to verticle section

**Daily Cost:** \$0

**Cumulative Cost:** \$419,101

---

**GMBU 14-14T-9-15H**

**Drill 6 1/8" lateral**

**Date:** 3/31/2011

Capstar #329 at 7440. 6 Days Since Spud - Run correlation log 100' @ 100fph - hole appearing to clean up with occasional small slivers returning - Break circ & wash from 5900'-6248' @ bottoms up circ up +/-2 min wave of uncut chunks and slivers, - TIH - Drill 6 1/8" lateral 6350'-7440' (1090') @ 56 fph w/ 284gpm 130 rpm mm + 60=190 w/ 1560 psi

**Daily Cost:** \$0

**Cumulative Cost:** \$459,628

---

**GMBU 14-14T-9-15H**

**Drill 6 1/8" lateral**

**Date:** 4/1/2011

Capstar #329 at 8060. 7 Days Since Spud - Rig service/work on mud pumps - Drill 6 1/8" lateral 7593'-7729' (136') @ 34 fph w/ 284gpm 130 rpm mm + 60=190 w/ 2000 psi - Trouble shoot LWD and relog 90' - Drill 6 1/8" lateral 7440'-7593' (153') @ 26 fph w/ 284gpm 130 rpm mm + 60=190 w/ 1900 psi - Drill 6 1/8" lateral 7729'-8060' (331') @ 27.6 fph w/ 284gpm 130 rpm mm + 60=190 w/ 2000 psi

**Daily Cost:** \$0

**Cumulative Cost:** \$511,480

---

**GMBU 14-14T-9-15H****TIH****Date:** 4/2/2011

Capstar #329 at 8122. 8 Days Since Spud - and low torque rotation - TIH - Cut and Slip drilling line - TIH - C/O bit, motor, Hold PJSM, install sources, and program HEL tool - Hold PJSM w/ weatherford and remove sources - Pull up and ream thru dogleg with ghost reamer - Drill 6 1/8" lateral 8060'-8122' (62') @ 12.4 fph w/ 284gpm 130 rpm mm + 60=190 w/ 2100 psi - Circ and cond / pump 20bbl high vis sweep @ 10.5ppg and circ out - TOOHe work thru tight spots from 6986' - 6488' P/U 125K max pull 200K work thru with 175K w/out pump

**Daily Cost:** \$0**Cumulative Cost:** \$556,591

---

**GMBU 14-14T-9-15H****Drill 6 1/8" lateral****Date:** 4/3/2011

Capstar #329 at 8805. 9 Days Since Spud - Drill 6 1/8" lateral 8358'-8805' (447') @ 33.1 fph w/ 284gpm 130 rpm mm + 60=190 w/ 2875 psi - Troubleshoot LWD tool - Drill 6 1/8" lateral 8122'-8358' (236') @ 31.4 fph w/ 284gpm 130 rpm mm + 60=190 w/ 2875 psi - Rig service - Wash in the hole - 8281'-8296', 8727'-8742', Ream out slides @ 150fph multiple times due to drag

**Daily Cost:** \$0**Cumulative Cost:** \$598,620

---

**GMBU 14-14T-9-15H****Drill 6 1/8" lateral****Date:** 4/4/2011

Capstar #329 at 9582. 10 Days Since Spud - Trouble shoot LWD cycle pumps multiple times to obtain survey - Drill 6 1/8" lateral 9129'-9582' (453') @ 47.7 fph w/ 284gpm 130 rpm mm + 60=190 w/ 2810 psi - Rig repair / work on mud pumps - Drill 6 1/8" lateral 9038'-9129' (91') @ 36.4 fph w/ 284gpm 130 rpm mm + 60=190 w/ 2810 psi - previous drilling parameters - slivers reducing in size and amount before returning to drill and fluid weights stabilizing to near - return excess amounts of shale and limestone slivers to surface during last 1.5 hrs of circ, - Circulate and Condition Mud / Mix chemicals to thin and release trapped air in drlg fluid - Rig Service work on both mud pumps - raising viscosity by +30 and dropping MW by .4 ppbbl due to air cut Mud - flocking of the mud, after +/- 15 minutes severe flocking in pit system and hole occurred, - than torque prior to pumping pill / On initial return of lube to surface it showed no sign of any - saw torque drop +/- 2000 ft/lbs as lube cleared bit and lateral then torque raising to 200 pnds less - @ 8930 pump 80 bbl sweep of ProOne XPL Downhole Drilling fluid as per distributor's recipe - Drill 6 1/8" lateral 8805'-9038' (233') @ 51.8 fph w/ 284gpm 130 rpm mm + 60=190 w/ 2875 psi

**Daily Cost:** \$0**Cumulative Cost:** \$649,544

---

**GMBU 14-14T-9-15H****Drill 6 1/8" lateral****Date:** 4/5/2011

Capstar #329 at 10353. 11 Days Since Spud - Rig service - Drill 6 1/8" lateral 9582'-9899' (317') @ 27.6 fph w/ 284gpm 130 rpm mm + 60=190 w/ 2900 psi - Drill 6 1/8" lateral 9899'-10353' (454') @ 37.8 fph w/ 284gpm 130 rpm mm + 60=190 w/ 2915 psi

**Daily Cost:** \$0**Cumulative Cost:** \$686,695

---

**GMBU 14-14T-9-15H****Drill 6 1/8" lateral****Date:** 4/6/2011

Capstar #329 at 10381. 12 Days Since Spud - TOOHe & pull RH rubber - TIH. - Wash to

bottom from 9400'. - Circ hole clean. - Drill 6 1/8" lateral 10353' - 10381' (28') @ 18.6 fph w/ 284gpm 130 rpm mm + 60=190 w/ 2915 psi - Possible tool failure. Pressure down 200psi and torque down 1000psi. Unable to drill. - inspect bit, C/O motor, hold PJSM, install sources, and program HEL tool.

**Daily Cost:** \$0

**Cumulative Cost:** \$736,944

---

**GMBU 14-14T-9-15H**

**Logging**

**Date:** 4/7/2011

Capstar #329 at 10670. 13 Days Since Spud - Held Safety Meeting with Weatherford Loggers. - P/U Weatherford Immager Log Tools. - Hold safety meeting, pulled source, break down all Directional Tools. - Wash to bottom - Drill 6 1/8" lateral 10381' - 10670' (289') @ 48.2 fph w/ 284gpm 130 rpm mm + 60=190 w/ 3125 psi - Circulate hole clean for logs - Trip out of hole for logs. - Rig repair, fix draw works chain. - Continue trip out of hole for logs.

**Daily Cost:** \$0

**Cumulative Cost:** \$823,547

---

**GMBU 14-14T-9-15H**

**TOOH**

**Date:** 4/8/2011

Capstar #329 at 10670. 14 Days Since Spud - pumped 124 bbl mud, pumped logging tool out of DP. - Drill pipe stuck after pumping logging tool out. Work DP free, (circulate, no rotation or movement) - Pull Weatherford DP Imaging / GR logging tool @ 15 feet / min. f/ 10,670' to 5300'. - Trip out of hole f/ 5300' - Held Safety meeting with Weatherford & BJ pump truck. Pressure tested pump & lines to 5000 psi. - Trip in hole w/ Weatherford Shuttle Log to 10,670'. No tight spots.

**Daily Cost:** \$0

**Cumulative Cost:** \$846,253

---

**GMBU 14-14T-9-15H**

**TOOH**

**Date:** 4/9/2011

Capstar #329 at 10670. 15 Days Since Spud - Trip out of hole f/ 1363' to 826'. - Pulled Rotating Head Rubber. - Trip out of hole w/ DP f/ 826' to 156'. - L/D Weatherford Shuttle Logging Tools. - Held Safety Meeting, R/U Weatherford Wire Line & M/U Triple Combo tool string. - Run in hole with Triple combo, Tag Down @ 6098' (60 deg's). Log up w/ MLE / MPO / MDN / MCG, f/ 6098 - to 311'. - R/D Weatherford Wire Line Loggers. - M/U Bit, Bit Sub, 1 jt. DP, 5.94" OD Reamer, 137 jts DP, 7.75" OD Reamer, 4-1/2 DP & HWDP. To 6000', - Precautionary Wash and Ream f/ 6000' to 10,300', No Tight Spots. - Wash & Ream f/ 10300' to TD of 10670', No Excess tight spots. - Pump 40 bbl, 100 vis sweep & circulate hole clean. Work pipe 45', rotate 60 RPM, 265 (shakers clean) - Trip Out of Hole (to run casing) f/ 10670' to 8350' @ report time.

**Daily Cost:** \$0

**Cumulative Cost:** \$864,567

---

**GMBU 14-14T-9-15H**

**TOOH**

**Date:** 4/10/2011

Capstar #329 at 10670. 16 Days Since Spud - Trip out of hole w/ Packers Plus Reamer Assy. f/ 8350' to 4743'. - Service Rig. - Continue trip out of hole f/ 4743' to bit. L/D Packer Plus Reamer, Bit Sub, & Bit. - Pulled Wear Bushing, Dress top drive & slips to run 4-1/2" casing, clean up rig floor. - remaining 38' above KB) - P/U Crossover sub f/ 4-1/2" to 5-1/2", 5-1/2", 17#, M80, LT&C casing, Packer Plus Anchor Packers - 5-1/2" Mechanical Port Collar, Trip in hole to 7170'. Casing became Stuck at 7170'. - Attempt to work casing free, unsuccessful rotation, no up / down movement, unable to establish - circulation, keeping pressure below

1,000 psi, to avoid setting packers. (5' of joint in hole, the - P/U & M/U 14 Packer Plus Packers, 14 Frac port's & 78 joints, 4-1/2", 11.6#, N-80, LT&C casing.

**Daily Cost:** \$0

**Cumulative Cost:** \$884,164

---

**GMBU 14-14T-9-15H****Fishing**

**Date:** 4/11/2011

Capstar #329 at 10670. 17 Days Since Spud - angle drive in rig. Found ground up metal in the oil) prior to fishing operations starting. - Trip in hole (stay 2 joints off top of fish - and circulate. Mechanics will change out the right - unable to establish circulation w/ BJ pump truck, and keep pressure below 1000 psi to avoid setting - Packer Plus packers. Released BJ pump truck (truck on location) - Welder used gas detector to check rig floor area. Cut off 5-1/2" casing 5' above KB, and welded a - new 5-1/2" N-80, LTC by 5-1/2" SOW collar to casing. (let cool prior to R/U of wireline) - held safety meeting, R/U DCT wireline. Ran in hole w/ 1-11/16" Free Point, take free point & torque - readings. Found casing free in vertical hole, above KOP @ 5390'. w/ slight movement, and 8-10% - torque movement @ 5939'. POOH & R/D Free point tools. - M/U 3/8" shot rod w/ 200 grain string shot for back off. Run in hole and positioned shot over casing - collar at 5367'. (1 joint above KOP) Fired shot, and back off casing. Run repeat strip of log, shows - a 3' separation in pipe. POOH w/ back off shot tools. & R/D Wireline equip. - Trip out of hole & L/D 5367' +/- of Fish, Packers, Frac Ports, and Casing. Left in hole 4-1/2" - collar collar looking up w/ 1840.56' of Fish. - Move Drill Pipe, Fishing tools to rack, strap, O.D. & I.D. all tools. - M/U fishing Tools. 5" grapple in over shot, xo, bumper sub, xo, jars, 12 HWDP, intensifier, DP to surf - Continue attempting to work stuck casing free, unsuccessful rotating, no up or down movement,

**Daily Cost:** \$0

**Cumulative Cost:** \$916,089

---

**GMBU 14-14T-9-15H****Fishing**

**Date:** 4/12/2011

Capstar #329 at 10670. 18 Days Since Spud - Trip in hole w/ fishing BHA f/ 1314' to 5257'. Circulate @ 177 gpm, (110' off top of fish) - Slip & Cut 70' of Drilling Line. - Service Rig. - at 05:30 am Capstar O.K.ed jaring @ 250 and pulling to 300k. - Engage Fish with over shot, pull up to 175K and set off jars, pull up to 200k, and check for - movement. No Movement. - Jar on stuck casing, jars at 200k, pull up to 250k, and check for movement. No Movement to report. - Move Boiler to allow "chery picker" access to help mechanics change right angle drive on rig.

**Daily Cost:** \$0

**Cumulative Cost:** \$947,837

---

**GMBU 14-14T-9-15H****Wait on Cement**

**Date:** 4/13/2011

Capstar #329 at 10670. 19 Days Since Spud - Jar on Stuck Casing, setting Jars off @ 250K, pulling up to 300K. Broke Free, gained string weight - unknown chemical. Dump & Clean mud system. - Circulate bottoms up @ 200 gpm / 290 psi. (Held BOP Drill = 28 seconds) - Trip out of hole f/ top of fish @ 5367'. Recovered 1 joint of 4-1/2" casing (broken threads on pin - end) Leaving a 4-1/2" casing collar looking up, w/ new top of fish @ 5409.75' (pipe measurment) - Total Fish left in hole = 1797.81'. 6 packers, 6 frac ports & 31 joints of 4-1/2" casing - Lay Down all Slauch fishing tools. - Service Rig. - Obtain Verbal Approval By: Mr. Robbin Hanson w/ BLM to lay a 500 len. Foot cement plug on top of - fish @ 15:05 hrs, 11-April-2011. from 5400' to 4900'. Newfield Eng. Will submit a sundary notice. - Trip in hole with open end 4-1/2" drill pipe to 1711'. Load out all 5-1/2" & 4-1/2" casing and haul - to Runners yard for cleaning & inspection. Circulate while strapping DP. - Trip in hole f/ 1711' to 5409' with open end drill pipe. - Circulate bottoms up @ 228 gpm, while R/U BJ cementers, and finish loading out all

Casing. HSM. - HSM, Pressure test to 2500 psi. Pump 10 bbl water, followed by 20.8 bbl / 118 sks, Class G w/ 0.5% - CD32, @ 17 ppg. Equalize plug w/ 3.5 bbl water and 67 bbl 9.6 ppg mud. Pulled 8 singles to 5122'. - Pump 10 bbl water, 20.8 bbl class G cement w/ 0.5% CD32 @ 17 ppg. Equalize w/ 3.5 bbl water & 63 bbl - 9.6 ppg mud. Pulled 12 singles to 4578' and Circulate DP clean. R/D BJ Cementers. (cement calculated - w/ 30% excess) CIP @ 01:00 am, 12-April-2011. (top of calculated plug to be 4719') - Pulled up to 4578' and circulate hole clean. - Trip out of hole f/ 4578'. to surface. Mud system is contaminated, not from cement, some - of 107K, from 105K/#.

**Daily Cost:** \$0

**Cumulative Cost:** \$1,289,210

---

**GMBU 14-14T-9-15H**

**Time Drill off Cement Plug**

**Date:** 4/14/2011

Capstar #329 at 4877. 20 Days Since Spud - Work Grouve / cut Trough for Kick Off,f/ 4797' - 4820'. - Time Drill @ 1" / 5 min f/ 4820' to 4826' w/ tool face @ 160 deg. Azi. 4826' to 4833', @ 1" / 3 min. - Time Drill f/ 4833' - 4852', @ 1" / 2 min. w/ 160 tool face. - Troughing tool face @ 60 deg. - Time Drill 4875' - 4877', 1" / 3 min, @ 60 deg. (95% Cement / 5% Shale) - Time Drill 4853' - 4855', 1" / 4 min, @ 60 deg. - Time Drill 4855' - 4857', 1" / 3 min, @ 60 deg. - Time Drill 4857' - 4875, 1" / 1 min, @ 60 deg. - Time Drill 4852' - 4853', 1" / 5 min, @ 60 deg.

**Daily Cost:** \$0

**Cumulative Cost:** \$1,446,765

---

**GMBU 14-14T-9-15H**

**Time Drill off Cement Plug**

**Date:** 4/15/2011

Capstar #329 at 5033. 21 Days Since Spud - Drill softer cement f/ 4877' to 4909'. Troughing f/ 4909' to 4933'. TFO 140. - Time Drill 1" per 5 min. f/ 4933' to 4935', TFO 140 (10% formation cuttings in sample by mud logger - Slide f/ 4935' to 5014'. TFO 140. (Cuttings show 98% cement) - Trip Out of Hole f/ 5014' to 4744' (6 stands). - Time Drill @ 1" / 5 min. f/ 5028' to 5033' (95% cement / 5% shale / tr % sandstone) - nice, no hang up's on down reaming. - Slide f/ 5014' - 5028'. TFO 140. - Troughing f/ 5010' to 5028' - Ream each joint 2 times w/ 422 gpm / 195 Total RPM's f/ 4744' to 5014'. No tight spots, reamed very

**Daily Cost:** \$0

**Cumulative Cost:** \$1,469,856

---

**GMBU 14-14T-9-15H**

**Time Drill off Cement Plug**

**Date:** 4/16/2011

Capstar #329 at 5062. 22 Days Since Spud - Time Drill @ 1" / 5 min. f/ 5033' to 5037' Time Drill @ 1" / 4 min. f/ 5037' to 5045' TFO 145. - with 422 gpm, 135 bit RPM, 8-12 wob, 30 diff. psi, 1564 spp. - Pump slug, Trip Out of Hole f/ 5045' to BHA. - Pulled Rotating Head Rubber. - L/D Weatherford Directional Tools. (motor shows wear on back of motor, bit excelent) - Repair / Replace Swivel Lock on Top Drive. - Adjust New Hunting Motor to 2.12 deg. / 7 foot bit to bend. - Scribe Motor & Monel. - Trip in Hole f/ BHA to 1927'. - Installed Rotating Head Rubber. - Trip in hole f/ 1927' to 5024'. (higher bend motor had no effect on trip in hole) - Work Trough f/ 5024' to 5044'. TFO 150. - Time Drill f/ 5045' - 5047' @ 1" / 5 min. TFO 150. (5% formation in cuttings sample) - Time Drill f/ 5047' - 5049', @ 1" / 4 min. TFO 150. (20% formation in cuttings sample) - Time Drill f/ 5049' - 5050', @ 1" / 3 min. TFO 150. (25% formation in cuttings sample) - Time Drill f/ 5050' - 5062' @ 1" / 2 min. TFO 150. ( 30 % formation in cuttings sample)

**Daily Cost:** \$0

**Cumulative Cost:** \$1,512,544

---

**GMBU 14-14T-9-15H****Build 7-7/8" Curve****Date:** 4/17/2011

Capstar #329 at 5217. 23 Days Since Spud - Slide f/ 5158' - 5217', 16.8 fph, 40 wob, 422 gpm, 135 Brpm's, 1620 psi, 140 diff. TFO 127, - Trip in hole f/ 100' to 5158'. No tight spots, no fill on bottom. - P/U new 1.83 Weatherford motor, M/U Bit #6 and scribe MWD collar. - Trip out of hole f/ 5158' to bit #6. (bit looks great, no sign of damage on motor) - Mix & pump slug. - Time Drill f/ 5090' to 5135', @ 1" / 30 sec. TFO 150 (80% formation) - Time Drill f/ 5140' - 5158', @ 1" / min. TFO 150 (100% Formation) Motor pressured up and had - Slide f/ 5135' - 5140', TFO 150. - Time Drill f/ 5062' - 5088' @ 1" / 1 min. TFO 150 (60% formation) - Work on mud pump & mud system. - Time Drill f/ 5088' - 5090', @ 1" / 1 min. TFO 150. (70% formation) - severe vibration. Decision was made to TOH, P/U curve assembly.

**Daily Cost:** \$0**Cumulative Cost:** \$1,542,074

---

**GMBU 14-14T-9-15H****Build 7-7/8" Curve****Date:** 4/18/2011

Capstar #329 at 5633. 24 Days Since Spud - Slide f/ 5613' - 5633', 20 ROP, 40 WOB, 422 GPM, 135 RPM, 1920 PSI, 225 DIFF, TFO 0. - Rotate f/ 5597' - 5613', 16 ROP, 30 WOB, 422 GPM, 35 RPM, 1900 PSI, 240 DIFF, - Slide f/ 5577' - 5597', 13.3 ROP, 40 WOB, 422 GPM, 135 RPM, 1915 PSI, 225 DIFF. TFO 0. - Rotate f/ 5567' - 5577', 20 ROP, 30 WOB, 40 RPM, 422 GPM, 1920 PSI, 240 DIFF. - Slide f/ 5540' - 5567', 13.5 ROP, 45 WOB, 135 RPM, 422 GPM, 1900 PSI, 210 DIFF. TFO 0. - Rotate f/ 5528' - 5540', 24 ROP, WOB, 30 RPM, 422 GPM, 1900 PSI, 133 DIFF - Slide f/ 5480' - 5500', 20 ROP, 40 WOB, 135 RPM, 422 GPM, 1900 PSI, 265 DIFF. TFO 20 - Rotate f/ 5500' - 5510', 20 ROP, 40 WOB, 45 RPM, 422 GPM, 1800 PSI, 268 DIFF. - Slide f/ 5510' - 5528', 18 ROP, 40 WOB, 135 RPM, 422 GPM, 1900 PSI, 318 DIFF. TFO 0 - Rotate f/ 5470' - 5480', 10 ROP, 30 WOB, 33 RPM, 422 GPM, 1850 PSI, 312 DIFF. - Slide f/ 5450' - 5470', 20 ROP, 35 WOB, 135 RPM, 422 GPM, 1825 PSI TFO 90 R. - Rotate f/ 5394' - 5450', 18.6 ROP, 35 WOB, 135 RPM, 422 GPM, 1875 PSI, - Slide f/ 5386' - 5394', 16 ROP, 35 WOB, 135 RPM, 422 GPM, 1758 PSI. TFO 90R. - Rotate f/ 5350' - 5386', 24 ROP, 30 WOB, 35 RPM, 422 GPM, 1695 PSI, - Slide f/ 5338' - 5350', 24 ROP, 35 WOB, 135 RPM, 422 GPM, 1738 PSI, 264 DIFF. TFO 90R. - Rig Service. - Drill, Rotate f/ 5293' - 5338', 18 ROP, 30 WOB, 35 RPM, 422 GPM, 1660 PSI, 185 DIFF, 170 T.RPM. - Wipe & Ream hole f/ 5293' - 5205', w/ 170 total RPM, 422 GPM, to clean up hole & drop angle. - Drill,, Rotate f/ 5217' - 5293', 19' ROP. 30 WOB, 35 RPM, 422 GPM, 1663 PSI, 145 DIFF, 170 RPM's

**Daily Cost:** \$0**Cumulative Cost:** \$1,571,604

---

**GMBU 14-14T-9-15H****Build 7-7/8" Curve****Date:** 4/19/2011

Capstar #329 at 5948. 25 Days Since Spud - Slide f/ 5825' - 5845', 10 ROP, 35 WOB, 135 RPM, 422 GPM, 2030 PSI, 240 DIFF, TFO 0. - Rotate f/ 5815' - 5825', 20 ROP, 30 WOB, 30 RPM, 422 GPM, 2050 PSI, 263 DIFF. - Slide f/ 5794' - 5815', 10.5 ROP, 40 WOB, 135 RPM, 422 GPM, 2100 PSI, 260 DIFF, TFO 0. - Rotate f/ 5785' - 5794', 18 ROP, 30 WOB, 30 RPM, 422 GPM, 2240 PSI, 400 DIFF, - Slide f/ 5702' - 5785', 13.8 ROP, 40 WOB, 135 RPM, 422 GPM, 2150 PSI, 375 DIFF. TFO 0. - Rotate f/ 5695' - 5702', 7 ROP, 40 WOB, 30 RPM, 422 GPM, 2060 PSI, 427 DIFF. - Rotate f/ 5845' - 5867', 14.6 ROP, 36 WOB, 50 RPM, 422 GPM, 2135 PSI, 345 DIFF. - Rotate f/ 5668' - 5673', 16 ROP, 30 WOB, 30 RPM, 422 GPM, 2060 PSI, 365 DIFF. - Slide f/ 5643' - 5668', 16.6 ROP, 40 WOB, 135 RPM, 422 GPM, 2030 PSI, 385 DIFF, TFO 0 - Rotate f/ 5633' - 5643', 10 ROP, 40 WOB, 135 RPM, 422 GPM, 1940 PSI, 385 DIFF. - Slide f/ 5930' - 5948', 18 ROP. 40 WOB, 135 RPM, 422 GPM, 2030 PSI, 300 DIFF, TFO 0. - Rotate f/ 5887' - 5930', 14.3 ROP. 30 WOB, 45 RPM, 422 GPM, 2140 PSI, 330 DIFF. - Slide f/ 5867' - 5887', 10 ROP, 35 WOB, 135 RPM, 422 GPM, 2020 PSI, 290 DIFF, TFO 0 - Slide f/ 5673' - 5695', 14.6 ROP, 40 WOB, 135 RPM, 422 GPM, 2100 PSI, 470 DIFF. TFO 0.

**Daily Cost:** \$0



**Cumulative Cost:** \$1,603,947

---

**GMBU 14-14T-9-15H**

**Build 7-7/8" Curve**

**Date:** 4/20/2011

Capstar #329 at 6065. 26 Days Since Spud - Circulate, & Service Rig. - Pump 40 bbl, 90 vis sweep, Circulate hole clean, Reciprocate / rotate while circulating. - Trip out of hole f/ 5974' to BHA. - Remove Rotating Head Rubber. - Break & L/D MWD, Monel, Motor, & Bit #6. (closed blind rams) - M/U Bit #7, 1.85 deg. Bent housing Motor, Monel & Scribe in hole. Surface Test MWD. - Installed Rotating Head Rubber. - Trip in hole to 810' - 5958'. No tight Spots, No Fill on Bottom. - Slide f/ 5958' - 6027', 23 FPH, 18 WOB, 135 RPM, 422 GPM, 2100 PSI, 182 DIFF, TFO o. - Blew Pop's on pumps, no circulation, Work stuck pipe free @ 225k, (at connection) - Slide f/ 6047' - 6065', 18 FPH, 30 WOB, 138 RPM, 430 GPM, 1950 PSI, 285 DIFF, TFO o. - Pump 40 bbl / 100 vis sweep. - Slide f/ 6027' - 6047', 13.3 FPH, 35 WOB, 135 RPM, 422 GPM, 2000 PSI, 125 DIFF, TFO o. - Slide f/ 5948' - 5974', 26 ROP, 30 WOB, 135 RPM, 422 GPM, 2080 PSI, 310 DIFF, TFO 0. - Pulled 2 joints off bottom f/ 6027' - 5937', Pump 2 - 40 bbl / 100 vis sweeps, circulate, wash & - ream back to bottom f/ 5937' - 6027'.

**Daily Cost:** \$0

**Cumulative Cost:** \$1,646,926

---

**GMBU 14-14T-9-15H**

**Build 7-7/8" Curve**

**Date:** 4/21/2011

Capstar #329 at 6337. 27 Days Since Spud - Slide f/ 6065' - 6077', 12' fph, 17 wob, 135 rpm, 410 gpm, 1700 psi, 130 Diff, TFO 20L. - Circulate bottoms up, Build & pump pill. - Trip out of hole f/ 6077' - BHA, Tight spots @ 5812', 5460', 5214' (wipe through tight spots) - Pulled Rotating Head Rubber. - Break & L/D Directional Tools. - L/D Bit #7, M/U Bit #8, Adjust motor up f/ 1.85 to 2.0 deg's. M/U & Scribe in hole. - Installed Rotating Head Rubber. - Trip in hole to 491' & Test MWD, Trip in Hole f/ 491' - 5987', Precautionary W & R f/ 5987' - 6077'. - No tight Spots on TIH, No Fill on Bottom. - Slide f/ 6077' - 6337', 21.6' fph, 45 wob, 136 rpm, 423 gpm, 1700 psi, 120 Diff, TFO 20

**Daily Cost:** \$0

**Cumulative Cost:** \$1,675,490

---

**GMBU 14-14T-9-15H**

**TIH**

**Date:** 4/22/2011

Capstar #329 at 6355. 28 Days Since Spud - TOO H to pick up lateral assembly - Circ pump 40 bbl high vis sweep and circ hole clean - Lay down build / curve assembly - Pull wear bushing - Pressure test BOP's / Test Blind & Pipe rams to 250 low & 2000 high - Test choke line, Choke manifold, Lower Kelly cock & safety valve to 250 low 2000 high - Test annular to 250 low and 1500 high / all test good - Install wear bushing in wellhead - PU / MU lateral bha, scribe tools, & surface test MWD - Rig repair / change out pod in # 1 mud pump - TIH / load racks and SLM pipe - Slip and cut drilling line 120' - TIH / load racks and SLM pipe - Build curve 6337'-6355',(18') @12' fph, 45 wob, 136 rpm, 423 gpm, 1700 psi - Pull rot head rubber

**Daily Cost:** \$0

**Cumulative Cost:** \$1,732,728

---

**GMBU 14-14T-9-15H**

**TIH**

**Date:** 4/23/2011

Capstar #329 at 6643. 29 Days Since Spud - TIH / load racks and SLM pipe - Rig service / adjust brakes - Rig Repair / adjust brake linkage - Troubleshoot EM tools - TIH - Troubleshoot EM tool - Circ hole clean and pump slug - TOO H for EM MWD failure - Work Directional bha / c/o EM MWD, check motor & bit, & scribe tools - Drill 6 1/8" lateral 6355' - 6643' (288') @ 36 fph w/ 284gpm 130 rpm mm + 60=190 w/ 1700 psi

**Daily Cost:** \$0  
**Cumulative Cost:** \$1,775,790

---

**GMBU 14-14T-9-15H**

**Drill 6 1/8" lateral**

**Date:** 4/24/2011

Capstar #329 at 7914. 30 Days Since Spud - Rewipe 6000'-6045' for gamma log - Drill 6 1/8" lateral 6643' - 7008' (365') @ 61 fph w/ 284gpm 130 rpm mm + 40=170 w/ 1785 psi - with 50k over P/U wieght engage rotary and pipe pulled freely, reduce MW to 9.6-9.7 - Drill 6 1/8" lateral 7008' - 7914' (906') @ 53 fph w/ 284gpm 130 rpm mm + 40=170 w/ 1800 psi - 7420' attempt to slide, slide >1' attempt to work pipe to reset toolface & pipe pulled tight work - Rig service

**Daily Cost:** \$0  
**Cumulative Cost:** \$1,806,213

---

**GMBU 14-14T-9-15H**

**TOOH**

**Date:** 4/25/2011

Capstar #329 at 8708. 31 Days Since Spud - Drill 6 1/8" lateral 7914' - 8685' (771') @ 67 fph w/ 284gpm 130 rpm mm + 40=170 w/ 1800 psi - Rig Service - Circ up sample to verify location within basal carbonate - Drill 6 1/8" lateral 8685' - 8708' (23') @ 23 fph w/ 284gpm 130 rpm mm + 40=170 w/ 1800 psi - Pump 40 bbl 125vis sweep & circulate to clean hole - TOOH / after 1st 3 jts pulled had excess drag on straight pull of 50+k work pipe out of the hole - Circulate / Reciprocate and raise FV from 50 - 60 while maintaining 9.9 ppg MW - circulate hole while raising weight to 9.9 ppg and vis to 50 / circ up +/- 5 bbls of dime to silver - dollar size slivers and chunks of undrilled cuttings - Backream out of the hole to 7050' with excess torque and drag close to the same height on every jt - while still circulating up slivers and chunks with amounts less than previous circ - Pull 3 jts with drag increasing on every jt - with reciprocation and rotary to 7720'

**Daily Cost:** \$0  
**Cumulative Cost:** \$1,846,408

---

**GMBU 14-14T-9-15H**

**Drill 6 1/8" hole with mud**

**Date:** 4/26/2011

Capstar #329 at 8901. 32 Days Since Spud - TOOH - Cut & slip drilling line - TOOH c/o motor, bit, & scribe tools - TIH pick up agitator / load racks and SLM pipe - Drill 6 1/8" lateral 8708' - 8901' (193') @ 35 fph w/ 284gpm 130 rpm mm + 40=170 w/ 2900 psi - Circulate and Reciprocate & strap pipe - Wash in the hole from 7800' - 8708' - Circ bottoms up returning small amount of uncut shale - Wash in the hole from 6355' - 7800'

**Daily Cost:** \$0  
**Cumulative Cost:** \$1,877,077

---

**GMBU 14-14T-9-15H**

**Drill 6 1/8" lateral**

**Date:** 4/27/2011

Capstar #329 at 10163. 33 Days Since Spud - Drill 6 1/8" lateral 8901' - 9392' (491') @ 58 fph w/ 284gpm 130 rpm mm + 60 = 190 rpm w/ 2900psi - Rig service - Drill 6 1/8" lateral 9730' - 10163' (433') @ 62 fph w/ 284gpm 130 rpm mm + 55 = 185 rpm w/ 3000psi - Rig repair / work on mud pumps - Drill 6 1/8" lateral 9392' - 9730' (338') @ 45 fph w/ 284gpm 130 rpm mm + 55 = 185 rpm w/ 2950psi

**Daily Cost:** \$0  
**Cumulative Cost:** \$1,926,693

---

**GMBU 14-14T-9-15H**

**M/U reamer assmby & TIH**

**Date:** 4/28/2011

Capstar #329 at 10650. 34 Days Since Spud - Drill 6 1/8" lateral 10163' - 10650' (487') @ 49 fph w/ 284gpm 130 rpm mm + 55 = 185 rpm w/ 3000psi - Laydown directional BHA - TOO H for reamer run / Pulled tight and work thru from 8576'-8100' with torque and reciprocation / - Circ hole clean & pump slug

**Daily Cost:** \$0

**Cumulative Cost:** \$1,988,624

---

**GMBU 14-14T-9-15H**

**TOOH**

**Date:** 4/29/2011

Capstar #329 at 10650. 35 Days Since Spud - Pick up reamer assembly and TIH to 6355' - Hold S/M over pinch points - TOO H above 6355' to clean out 7 7/8" section - Ream from 8000'-8750' @ 200-250 fph / Ream 10100'-10650' @ 200-250 fph - Pull 5 jts w/out pump and pump slug - Wash & Ream from 6330'-10650'

**Daily Cost:** \$0

**Cumulative Cost:** \$2,011,098

---

**GMBU 14-14T-9-15H**

**Running casing**

**Date:** 4/30/2011

Capstar #329 at 10650. 36 Days Since Spud - TOO H to 7 7/8" section - Circ 7 7/8" section clean w/ 420 gpm - Trip / slide in the hole to 9000' / wash in the hole 9000'-10650' - Circ and spot Lubra beads in lateral and curve sections - Run Packers plus assembl, 4 1/2" & 5 1/2" production csg - Hold PJSM / Rig up HES logging and run 6 arm caliper log / logs went to xxxx' & rig down HES - Pull wear bushing - Remove kelly hose - TOO H to run caliper log / lay down reamer's

**Daily Cost:** \$0

**Cumulative Cost:** \$2,037,186

---

**GMBU 14-14T-9-15H**

**circulating**

**Date:** 5/1/2011

Capstar #329 at 10650. 37 Days Since Spud - Unable to move downhole from 8450' / Circ and work joint out from 8450' - 8444', LD 1 jt of csg - Circ and work joint while still returning oily, gritty, substance - to 4 bpm and circ up oil with lubrabeads that have become soft and gritty and bonded with oil - while increasing flowrate @ 1/4 bpm increments, Work and LD 2 jts of csg, Work and increase flowrate - Unable to move downhole from 8430' (pipe still moving freely uphole) Break circ and work pipe uphole - Run Packers plus assembl, 4 1/2" & 5 1/2" production csg to 8430' - silt and gritt w/ lubra beads - f/ 7405' - 7363' increasing flowrate in increments to 3.5 bpm / returning excess amounts of oily - to 1.5 bpm work entire joint uphole (unable to move downhole), LD 1 jt of 5 1/2" csg, Work casing - Break circulation and work pipe uphole while increasing flowrate in 1/4 bpm increments increase rate - Work last 5 jts down with excessive drag @ 7450' pipe not moving downhole (moving uphole freely) - Run Packers plus assembl, 4 1/2" & 5 1/2" production csg - Hole seeping @ +/- 4 bph / build 100 bbls volume in active pits - Run Packers plus assembl, 4 1/2" & 5 1/2" production csg - Run Packers plus assembl, 4 1/2" & 5 1/2" production csg to 8450'

**Daily Cost:** \$0

**Cumulative Cost:** \$2,058,443

---

**GMBU 14-14T-9-15H**

**TIH**

**Date:** 5/2/2011

Capstar #329 at 10650. 38 Days Since Spud - clean up with little to no oil or silt returning across shaker - TIH - Rig service - TIH - Install wear bushing, switch boom, prep equipt for DP, P/U & make up bit & reamer - with fluid 2 sides of element were swelled to 6" - packer

wich was +/-500' from end had gouge in the bottom element appears to have been impregnated - POOH with csg / inspecting csg & packers plus assembly while coming out / found that 2nd rockseal - Run csg / run additional 15' of csg in hole with no more movement downhole - diesel pill brought back some thick oily residue - Pump 10bbl diesel pill starting rate of 2.5 bpm and increasing rate as pressure decreased up to 3bpm - continue to raise pump rate @ 1/4 bpm increments w/ 680 psi @ 2.5 bpm - rate with multiple pressure spikes that kicked out pump truck / work 1 jt out of the hole and - Bring on pump truck and break circ 8550' with 1 bpm w/ kick outs set @ 900 psi attempt to increase - downhole - Run 3 additional jts of 5 1/2" csg in the hole working last 2 jts multiple times / csg stopped - Circulate on csg increasing rate w/ pump truck by 1/4 bbl increments up to 4 bpm / hole appeared to

**Daily Cost:** \$0

**Cumulative Cost:** \$2,114,242

---

**GMBU 14-14T-9-15H**

**Circulate & Condition Hole**

**Date:** 5/3/2011

Capstar #329 at 10650. 39 Days Since Spud - Wash / Ream from 6355'-10,650' & return small amount of uncut shale, gritty lubra beads with oily - residue / spend time reaming thru increase torque areas - Circ / Reciprocate clean for short - POOH w/ short trip to 7000' - Slide in the hole from 7000' - 10470' / rot & circ in hole from 10470' - 10650' - Circulate / Reciprocate for csg - TIH w/ reamer assembly

**Daily Cost:** \$0

**Cumulative Cost:** \$2,147,512

---

**GMBU 14-14T-9-15H**

**Rigging down**

**Date:** 5/4/2011

Capstar #329 at 10650. 41 Days Since Spud - Run csg and land in head @ 10630' - Rig up to and run weatherford production system, 4 1/2" & 5 1/2" production csg to 10,137' - TOOH, lay down reamers, pull wear bushing, and prep to run production csg - Slip and cut drilling line - TOOH to run prod csg - Circulate / Reciprocate for csg - Slip and cut drilling line - Spot NXS Lube in lateral & pump slug - Rig down, perform repairs & PM on rig equipt, move some equipt to new location, and inspect BHA. - Clean pits Release Rig @ 1800 hrs on 05/04/11 - Nipple down & install cap - Hold PJSM w/ BJ and pump 285 bbls of FW to cover lateral packers - Run csg and land in head @ 10630' - Rig up to and run weatherford production system, 4 1/2" & 5 1/2" production csg to 10,137' - Hold PJSM w/ BJ and pump 285 bbls of FW to cover lateral packers - Nipple down & install cap - Clean pits Release Rig @ 1800 hrs on 05/04/11 - Rig down, perform repairs & PM on rig equipt, move some equipt to new location, and inspect BHA. - Circulate / Reciprocate for csg - TOOH, lay down reamers, pull wear bushing, and prep to run production csg - TOOH to run prod csg - Spot NXS Lube in lateral & pump slug

**Daily Cost:** \$0

**Cumulative Cost:** \$2,707,106

---

**Pertinent Files: Go to File List**



CONFIDENTIAL

GMB 14-14T-9-15H

Wellbore Diagram



Surface Location: NE/NW, Sec 16, T9S R16E

County/State: Greater Monument Butte, Duchesne County, Utah

Elevation: 5847' GL + 12' KB

API: 43-013-50441

Wellhead

8-5/8" Casing Shoe  
311

Casing Detail	Size	Wt.	Grade	Conn.	Top	Bottom	Burst	Collapse	ID	Drift	bbl/ft	Hole	TOC
Surface	8-5/8"	24#	J-55	LTC	0	311							Surface
Production	5-1/2"	17#	M-80	LTC	0	6,300	7,740	7,020	4.892	4.767	0.0233	7-7/8"	Port Collar:
Production	4-1/2"	11.6#	P-110	LTC	6,300	10,630	7,774	8,510	4.000	3.875	0.0155	6-1/8"	to Surface
burst & collapse values are book, no additional safety factors have been applied													

Tubing Detail	Size	Wt.	Grade	Conn.	Length	Top	Bottom	Joints
TBG DETAIL: bullplug, 3 jts tubing, 21' cavins Desander, 2-7/8" sub, 1 jt 2-7/8" tubing, SN, 1 jt 2-7/8" tubing, TAC, and remaining 185 jts of 2-7/8" tubing. TA @ 5,806'. SN @ 5,839'. EOT @ 5,985' NOTE on Tubing Anchor: TA (shortened inner springs & beveled outer springs--4.625" OD)								

WELLBORE FLUIDS

Lateral section fluid= +/-8.4 ppg "clean" fresh water  
Uphole annulus has 10ppg mudweight prior to cementing

Rod Detail	Size	Grade	Count	Length	Top	Bottom
Pump and Rod Detail: WFD MacGyver 3 pump with spring loaded cages, 2-1/2"x1-3/4" x22"x25"x29" RHBC pump x , on/off tool, 4"x7/8"guided rod sub, 5789'x SE 4 corod, 4,4,6,6' x 7/8" pony subs, 1 1/2" x 26" polished rod NOTE on Pump: with CoRod, must have Clutch (on/off tool) installed.						

Proposed Frac Data			Weatherford 16 Stage Zone Select frac system										Prop Vol (lbs)	Total Clean Vol (bbls)	
	Top	Bottom									Prop type/ size				
OH swell packer 1	10,615	10,627	float collar, and casing shoe below this Fraxis swell packer, total intallation at 10,630'. And Open Hole TMD = 10,650												
Stage 1	10,470	10,615	Dual Hydraulic Toe Sleeves:	Depth 10,551	Ball OD (in.) NA	Seat ID (in.) NA	Vol. to Seat (bbl) 212.79	Actual Vol. (bbl) NA	Difference (bbl)	Ball Action (ΔP)	100 mesh sand 30/50 mesh sand	18,894 16,833	1,892		
OH swell packer 2	10,458	10,470	Weatherford OH Fraxis water swell packer										100 mesh sand 30/50 mesh sand	29,646 24,042	2,798
Stage 2	10,208	10,458	FracPort 2:	Depth 10,329	Ball OD (in.) 1.380	Seat ID (in.) 1.290	Vol. to Seat (bbl) 209.35	Actual Vol. (bbl) 0.00	Difference (bbl)	Ball Action (ΔP)	100 mesh sand 30/50 mesh sand	26,832 24,517	2,267		
OH swell packer 3	10,196	10,208	Weatherford OH Fraxis water swell packer										100 mesh sand 30/50 mesh sand	26,832 24,517	2,267
Stage 3	9,914	10,196	FracPort 3:	Depth 10,072	Ball OD (in.) 1.500	Seat ID (in.) 1.410	Vol. to Seat (bbl) 205.38	Actual Vol. (bbl) 0.00	Difference (bbl)	Ball Action (ΔP)	100 mesh sand 30/50 mesh sand	31,584 28,064	2,235		
OH swell packer 4	9,944	9,956	Weatherford OH Fraxis water swell packer										100 mesh sand 30/50 mesh sand	31,584 28,064	2,235
Stage 4	9,663	9,944	FracPort 4:	Depth 9,818	Ball OD (in.) 1.625	Seat ID (in.) 1.530	Vol. to Seat (bbl) 201.45	Actual Vol. (bbl) 0.00	Difference (bbl)	Ball Action (ΔP)	100 mesh sand 30/50 mesh sand	31,484 26,619	2,127		
OH swell packer 5	9,651	9,663	Weatherford OH Fraxis water swell packer										100 mesh sand 30/50 mesh sand	31,484 26,619	2,127
Stage 5	9,411	9,651	FracPort 5:	Depth 9,526	Ball OD (in.) 1.750	Seat ID (in.) 1.650	Vol. to Seat (bbl) 196.93	Actual Vol. (bbl) 0.00	Difference (bbl)	Ball Action (ΔP)	100 mesh sand 30/50 mesh sand	31,270 28,568	2,181		
OH swell packer 6	9,399	9,411	Weatherford OH Fraxis water swell packer										100 mesh sand 30/50 mesh sand	31,270 28,568	2,181
Stage 6	9,118	9,399	FracPort 6:	Depth 9,274	Ball OD (in.) 1.875	Seat ID (in.) 1.770	Vol. to Seat (bbl) 193.03	Actual Vol. (bbl) 0.00	Difference (bbl)	Ball Action (ΔP)	100 mesh sand 30/50 mesh sand	31,477 28,860	2,969		
OH swell packer 7	9,106	9,118	Weatherford OH Fraxis water swell packer										100 mesh sand 30/50 mesh sand	31,477 28,860	2,969
Stage 7	8,864	9,106	FracPort 7:	Depth 8,980	Ball OD (in.) 2.000	Seat ID (in.) 1.920	Vol. to Seat (bbl) 188.48	Actual Vol. (bbl)	Difference (bbl)	Ball Action (ΔP)	100 mesh sand 30/50 mesh sand	31,566 28,279	2,147		
OH swell packer 8	8,852	8,864	Weatherford OH Fraxis water swell packer										100 mesh sand 30/50 mesh sand	31,566 28,279	2,147
Stage 8	8,575	8,852	FracPort 8:	Depth 8,729	Ball OD (in.) 2.125	Seat ID (in.) 2.060	Vol. to Seat (bbl) 184.59	Actual Vol. (bbl) 0.00	Difference (bbl)	Ball Action (ΔP)	100 mesh sand 30/50 mesh sand	31,379 26,754	2,449		
OH swell packer 9	8,563	8,575	Weatherford OH Fraxis water swell packer										100 mesh sand 30/50 mesh sand	31,379 26,754	2,449
Stage 9	8,264	8,563	FracPort 9:	Depth 8,440	Ball OD (in.) 2.250	Seat ID (in.) 2.210	Vol. to Seat (bbl) 180.12	Actual Vol. (bbl)	Difference (bbl)	Ball Action (ΔP)	100 mesh sand 30/50 mesh sand	0 4,022	1,250		
OH swell packer 10	8,272	8,284	Weatherford OH Fraxis water swell packer										100 mesh sand 30/50 mesh sand	0 4,022	1,250
Stage 10	8,030	8,272	FracPort 10:	Depth 8,147	Ball OD (in.) 2.375	Seat ID (in.) 2.360	Vol. to Seat (bbl) 175.58	Actual Vol. (bbl) 0.00	Difference (bbl)	Ball Action (ΔP)	Never broke back, dropped next ball 100 mesh sand 30/50 mesh sand	29,874 29,857	2,240		
OH swell packer 11	8,018	8,030	Weatherford OH Fraxis water swell packer										100 mesh sand 30/50 mesh sand	29,874 29,857	2,240
Stage 11	7,742	8,018	FracPort 11:	Depth 7,897	Ball OD (in.) 2.500	Seat ID (in.) 2.500	Vol. to Seat (bbl) 171.72	Actual Vol. (bbl) 0.00	Difference (bbl)	Ball Action (ΔP)	100 mesh sand 30/50 mesh sand	31,133 28,111	2,145		
OH swell packer 12	7,730	7,742	Weatherford OH Fraxis water swell packer										100 mesh sand 30/50 mesh sand	31,133 28,111	2,145
Stage 12	7,449	7,730	FracPort 12:	Depth 7,605	Ball OD (in.) 2.625	Seat ID (in.) 2.650	Vol. to Seat (bbl) 167.20	Actual Vol. (bbl) 0.00	Difference (bbl)	Ball Action (ΔP)	100 mesh sand 30/50 mesh sand	31,053 26,251	2,081		
OH swell packer 13	7,437	7,449	Weatherford OH Fraxis water swell packer										100 mesh sand 30/50 mesh sand	31,053 26,251	2,081
Stage 13	7,192	7,437	FracPort 13:	Depth 7,313	Ball OD (in.) 2.750	Seat ID (in.) 2.600	Vol. to Seat (bbl) 162.68	Actual Vol. (bbl) 0.00	Difference (bbl)	Ball Action (ΔP)	100 mesh sand 30/50 mesh sand	31,142 28,140	2,117		
OH swell packer 14	7,180	7,192	Weatherford OH Fraxis water swell packer										100 mesh sand 30/50 mesh sand	31,142 28,140	2,117
Stage 14	6,894	7,180	FracPort 14:	Depth 7,056	Ball OD (in.) 2.875	Seat ID (in.) 2.950	Vol. to Seat (bbl) 158.70	Actual Vol. (bbl) 0.00	Difference (bbl)	Ball Action (ΔP)	100 mesh sand 30/50 mesh sand	36,377 40,263	2,885		
OH swell packer 15	6,892	6,894	Weatherford OH Fraxis water swell packer										100 mesh sand 30/50 mesh sand	36,377 40,263	2,885
Stage 15	6,633	6,882	FracPort 15:	Depth 6,757	Ball OD (in.) 3.000	Seat ID (in.) 3.140	Vol. to Seat (bbl) 154.07	Actual Vol. (bbl) 0.00	Difference (bbl)	Ball Action (ΔP)	100 mesh sand 30/50 mesh sand	52,784 61,365	3,643		
OH swell packer 16	6,621	6,633	Weatherford OH Fraxis water swell packer										100 mesh sand 30/50 mesh sand	52,784 61,365	3,643
Stage 16	6,352	6,621	FracPort 16:	Depth 6,485	Ball OD (in.) 3.125	Seat ID (in.) 3.340	Vol. to Seat (bbl) 149.86	Actual Vol. (bbl) 0.00	Difference (bbl)	Ball Action (ΔP)	100 mesh sand 30/50 mesh sand				
OH swell packer 17	6,345	6,352	Weatherford OH Fraxis water swell packer										Total Clean (bbl)	37,526	
ACP packer	5,427	5,432	Weatherford Annulus Casing Packer (ACP). Hydraulically set at 2,700psi												
ACP packer	5,417	5,422	Weatherford Annulus Casing Packer (ACP). Hydraulically set at 2,700psi												
Lat Length			4,263										Sand Total	100 mesh sand	478,495
Total Stim. Lateral			4,263										935,040	30/50 mesh sand	456,545
Avg. Stage Length			266		*between packers										

5.5"x4.5" XO 6,300

16

15

14

13

12

11

10

9

8

7

6

5

4

3

2

1

MD TD 10,630  
TVD TD 5,828